

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: March 18, 2004, 11:48:08 ; Search time 54.0335 Seconds  
(without alignments)  
3707.446 Million cell updates/sec

Title: US-09-945-258-14

Perfect score: 3687

Sequence: 1 MATAGGSGADPSRGLRL.....INAKADVLFAPREPAVSV 709

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A Geneseq 29Jan04.\*  
1: Geneseqp1980s.\*  
2: Geneseqp1990s.\*  
3: Geneseqp2000s.\*  
4: Geneseqp2001s.\*  
5: Geneseqp2002s.\*  
6: Geneseqp2003as.\*  
7: Geneseqp2003bs.\*  
8: Geneseqp2004s.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3687	100.0	709	3 AAY97549	Ray97549 Human PAM
2	3687	100.0	709	4 AAU12272	AAU12272 Human PRO
3	3687	100.0	709	4 AAG63935	AAG63935 Amino aci
4	3687	100.0	709	4 AAM39096	AAM39096 Human pol
5	3687	100.0	709	5 AAU79385	AAU79385 Human pre
6	3687	100.0	709	5 AAU98012	AAU98012 Human ami
7	3687	100.0	709	6 ABO17716	ABO17716 Novel hum
8	3687	100.0	709	6 ABU80970	ABU80970 Human PRO
9	3687	100.0	709	6 ABU66670	ABU66670 Human PRO
10	3687	100.0	709	6 ABUS9751	ABUS9751 Novel sec
11	3687	100.0	709	6 ABO24941	ABO24941 Human sec
12	3687	100.0	709	6 ABUS66946	ABUS66946 Human sec
13	3687	100.0	709	6 ADA45721	ADA45721 Novel hum
14	3687	100.0	709	6 ADA76152	ADA76152 Human PRO
15	3687	100.0	709	6 ADA18802	ADA18802 Human PRO
16	3687	100.0	709	6 ADA61425	ADA61425 Homo sapi
17	3687	100.0	709	6 ADB19210	ADB19210 Novel hum
18	3687	100.0	709	6 ADB27751	ADB27751 Human PRO
19	3687	100.0	709	6 ADA62330	ADA62330 Novel hum
20	3687	100.0	709	6 ADB15794	ADB15794 Human PRO
21	3687	100.0	709	6 ADA47580	ADA47580 Human PRO
22	3687	100.0	709	6 ADA67335	ADA67335 Human PRO
23	3687	100.0	709	6 ADB30382	ADB30382 Human PRO
24	3687	100.0	709	6 ADA85678	ADA85678 Novel hum
25	3687	100.0	709	6 ADA96890	ADA96890 Human PRO

## ALIGNMENTS

## RESULT 1

AA97549  
ID AAY97549 standard; protein; 709 AA.

XX AC AAY97549;

XX AC AAY97549;

DT 12-FEB-2001 (first entry)

XX XX

DE Human PAMP protein sequence.

XX XX

PAMP; human; presenilin associated membrane protein; immunogen;  
neurodegenerative disease; Alzheimer's disease; Lewy body variant;  
Parkinson's disease-dementia complex; neuropsychiatric disease;  
schizophrenia; age-associated memory loss; developmental disorder;  
neoplasm; diagnosis.

XX OS Homo sapiens.

XX XX

PN WO200060069-A1.

XX XX

PD 12-OCT-2000.

XX XX

PF 03-APR-2000; 2000WO-CA000354.

XX XX

PR 01-APR-1999; 99US-0127452P.

XX XX

PR 30-DEC-1999; 99US-0173826P.

XX XX

PA (UTOR ) UNIV TORONTO GOVERNING COUNCIL.

XX XX

PI St George- Hyselop PH, Fraser PB;

XX XX

DR WPI; 2000-665001/64.

XX XX

DR N-PSDB; AAA37885.

XX XX

PT Isolated presenilin associated membrane proteins and nucleic acids

XX XX

PT encoding them, useful for investigating and diagnosing Alzheimer's

XX XX

PT disease and other neurodegenerative diseases.

XX PS

PS Claim 2; Page 68-70; 79pp; English.

XX CC

This sequence is the human presenilin associated membrane protein (PAMP)  
of the invention. PAMP polypeptides may be used as an immunogen to  
generate antibodies that recognise the PAMP polypeptide. The PAMP  
nucleotide and protein sequence may also be used for diagnosing  
individuals who are at risk or who have a variety of neurodegenerative  
diseases (e.g. Alzheimer's disease, Lewy body variant, Parkinson's  
disease-dementia complex), neuropsychiatric diseases (e.g. schizophrenia,  
age-associated memory loss), developmental disorders, and neoplasms.

26 3687 100.0 709 6 ADA79194  
27 3687 100.0 709 6 ADA87333  
28 3687 100.0 709 6 ADB16535  
29 3687 100.0 709 6 ADA91627  
30 3687 100.0 709 6 ADB14690  
31 3687 100.0 709 6 ADB18651  
32 3687 100.0 709 6 ADA93866  
33 3687 100.0 709 6 ADB19762  
34 3687 100.0 709 6 ADB13074  
35 3687 100.0 709 6 ABO43249  
36 3687 100.0 709 6 ADA74328  
37 3687 100.0 709 6 ADB24561  
38 3687 100.0 709 6 ADA82085  
39 3687 100.0 709 6 ADA75048  
40 3687 100.0 709 6 ADA85126  
41 3687 100.0 709 6 ADA84574  
42 3687 100.0 709 6 ADB29830  
43 3687 100.0 709 6 ADA80358  
44 3687 100.0 709 6 ADA75600  
45 3687 100.0 709 6 ADA46825

Ada79194 Human PRO  
Ada87333 Novel hum  
Adb16535 Human PRO  
Ada91627 Novel hum  
Adb14690 Human PRO  
Adb18651 Novel hum  
Ada93866 Human PRO  
Adb19762 Novel hum  
Adb13074 Human PRO  
Abo43249 Novel hum  
Ada74328 Human PRO  
Adb24561 Human PRO  
Ada82085 Human PRO  
Ada75048 Human PRO  
Ada85126 Novel hum  
Ada84574 Novel hum  
Adb29830 Human PRO  
Ada80358 Human PRO  
Ada75600 Human PRO  
Ada46825 Human PRO

CC These may further be used to deduce the structural organisation and  
CC topology of PAMP, to identify proteins which interact with PAMP either in  
CC concert with presentin 1 (PS1) and PS2, or independently, and to create  
CC cell-free systems, transfected cell lines, and animal models of  
CC neurodegenerative and other diseases  
XX  
SQ Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 3; Length 709;  
Best local similarity 100.0%; Pred. No. 0;  
Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATAGGSGGADPSRGLRLLLSCVLLAGLCRGSVERKLYIPLNKTAPCVRLNATHQI 60  
Db 1 MATAGGSGGADPSRGLRLLLSCVLLAGLCRGSVERKLYIPLNKTAPCVRLNATHQI 60

QY 61 GCQSSISGDTGVIHVVEKEEDLQWLTDGNPPYMWLLESKHFTDLMEXLKGRSTRIAG 120  
Db 61 GCQSSISGDTGVIHVVEKEEDLQWLTDGNPPYMWLLESKHFTDLMEXLKGRSTRIAG 120

QY 121 LAVSLTKPSASGSPSVQCPNDGFGVYSNSYGEFAHCHREIOWNSLGNGLAYEDFSFPI 180  
Db 121 LAVSLTKPSASGSPSVQCPNDGFGVYSNSYGEFAHCHREIOWNSLGNGLAYEDFSFPI 180

QY 181 FLEDENETKVIKOCYQDHNLSQNGSAPTPLCAQOLFSSHAVISTATCRRSSIOSTF 240  
Db 181 FLEDENETKVIKOCYQDHNLSQNGSAPTPLCAQOLFSSHAVISTATCRRSSIOSTF 240

QY 241 SINPEIVCDPLSDYNNVMSMLKPINTTGLKPDVRRVVAATRLDSRSFFNVNPAESA 300  
Db 241 SINPEIVCDPLSDYNNVMSMLKPINTTGLKPDVRRVVAATRLDSRSFFNVNPAESA 300

QY 301 SFVTQAAAALOKAPDVTTLPRNVMEVFQGETFDYIGSRMVYDMKGFPPVLEND 360  
Db 301 SFVTQAAAALOKAPDVTTLPRNVMEVFQGETFDYIGSRMVYDMKGFPPVLEND 360

QY 361 SFVELGVALRTSLELWHTDPVSQKNESVRNQVEDLLATLEKSGAGVPAVILRRPNQSQ 420  
Db 361 SFVELGVALRTSLELWHTDPVSQKNESVRNQVEDLLATLEKSGAGVPAVILRRPNQSQ 420

QY 421 PLPSSIQRLFRARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLN 480  
Db 421 PLPSSIQRLFRARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLN 480

QY 481 TDTAKALADVATVGLRALYELAGTNSDVTQADPQVTVRLLYGFLIKANNSWFOSTLRQ 540  
Db 481 TDTAKALADVATVGLRALYELAGTNSDVTQADPQVTVRLLYGFLIKANNSWFOSTLRQ 540

QY 541 DLSRYLGDGFLQHYIAVSSPTNTTYYVQYALANLTGTVNLTRQCQDPSKVPSEKNDLY 600  
Db 541 DLSRYLGDGFLQHYIAVSSPTNTTYYVQYALANLTGTVNLTRQCQDPSKVPSEKNDLY 600

QY 601 EYSWVGFLHNETDRLPRCVRSTARLARALSPAFELSQWSSSTSTSTWTSRWDIPARI 660  
Db 601 EYSWVGFLHNETDRLPRCVRSTARLARALSPAFELSQWSSSTSTSTWTSRWDIPARI 660

QY 661 FLIASKELELITLVGFGILFSLIVYVCINAKADVLFIAPREPQAVSY 709  
Db 661 FLIASKELELITLVGFGILFSLIVYVCINAKADVLFIAPREPQAVSY 709

## RESULT 2

AAU12272

ID AAU12272 standard; protein; 709 AA.

XX AC AAU12272;

XX AC AAU12272;

XX DT 24-OCT-2001 (first entry)

XX DE Human PR04317 polypeptide sequence.

XX XX

XX KW Human secretory and transmembrane; PRO; mammalian; cancer; lung; breast;

XX KW prostate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage;

KW ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte;  
KW A-peptide; factor VIIA; gene therapy.  
XX  
OS Homo sapiens.  
XX WO200140466-A2.  
XX  
XX 07-JUN-2001.  
XX  
XX 01-DEC-2000; 2000WO-US032678.  
XX  
PR 01-DEC-1999; 99WO-US028301.  
PR 01-DEC-1999; 99WO-US028634.  
PR 02-DEC-1999; 99WO-US028551.  
PR 02-DEC-1999; 99WO-US028564.  
PR 02-DEC-1999; 99WO-US028565.  
PR 09-DEC-1999; 99US-0170262P.  
PR 16-DEC-1999; 99WO-US030095.  
PR 20-DEC-1999; 99WO-US030911.  
PR 20-DEC-1999; 99WO-US030999.  
PR 30-DEC-1999; 99WO-US031243.  
PR 30-DEC-1999; 99WO-US031274.  
PR 05-JAN-2000; 2000WO-US000219.  
PR 06-JAN-2000; 2000WO-US000277.  
PR 06-JAN-2000; 2000WO-US000376.  
PR 11-FEB-2000; 2000WO-US003565.  
PR 11-FEB-2000; 2000WO-US003565.  
PR 18-FEB-2000; 2000WO-US004341.  
PR 18-FEB-2000; 2000WO-US004342.  
PR 22-FEB-2000; 2000WO-US004414.  
PR 24-FEB-2000; 2000WO-US004914.  
PR 24-FEB-2000; 2000WO-US005004.  
PR 01-MAR-2000; 2000WO-US005601.  
PR 02-MAR-2000; 2000WO-US005841.  
PR 03-MAR-2000; 2000US-0187202P.  
PR 10-MAR-2000; 2000WO-US006319.  
PR 15-MAR-2000; 2000WO-US006884.  
PR 20-MAR-2000; 2000WO-US007377.  
PR 21-MAR-2000; 2000WO-US007532.  
PR 30-MAR-2000; 2000WO-US008439.  
PR 17-MAY-2000; 2000WO-US013705.  
PR 22-MAY-2000; 2000WO-US014042.  
PR 30-MAY-2000; 2000WO-US014941.  
PR 02-JUN-2000; 2000WO-US015264.  
PR 05-JUN-2000; 2000US-0209832P.  
PR 28-JUL-2000; 2000WO-US020710.  
PR 11-AUG-2000; 2000WO-US022031.  
PR 23-AUG-2000; 2000WO-US023522.  
PR 24-AUG-2000; 2000WO-US023328.  
PR 08-NOV-2000; 2000WO-US030952.  
PR 10-NOV-2000; 2000WO-US030873.

(GETH ) GENENTECH INC.

Baker KP, Bersini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;  
Gerritsen MF, Goddard A, Godowski PJ, Gurney AL, Sherwood S;Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;  
WPI; 2001-408281/43.

N-PSDB; AAS21344.

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Isolated , secretory and transmembrane PRO polypeptide used to detect  
other PRO polypeptides, link bioactive molecules to cells expressing PRO  
polypeptides, and detect the presence of mammalian tumors e.g. lung,  
breast, prostate, cervical.

Claim 12; Fig 202; 813pp; English.

AAU12172-AAU12446 represent novel human secretory and transmembrane PRO  
polypeptides. The PRO polypeptides are useful to detect other PRO  
polypeptides, to link bioactive molecules to cells expressing PRO  
polypeptides, to modulate biological activities of cells expressing PRO  
polypeptides, and to detect the presence of mammalian lung, colon,  
breast, prostate, rectal, cervical or liver tumours by comparing PRO

CC polypeptide expression in a cell sample to that in a control sample. Some  
 CC of the 275 sequences are also useful to stimulate the release of tumour  
 CC necrosis factor-alpha (TNF-alpha) from human blood, the proliferation or  
 CC differentiation of chondrocytes, the proliferation or gene expression in  
 CC pericyte cells, the release of proteoglycans from cartilage, the  
 CC proliferation of inner ear utricular supporting cells or of T-  
 CC lymphocytes, the release of a cytokine from peripheral blood monocytes  
 CC (PBMCs), or the proliferation of endothelial cells. Some of the PRO  
 CC polypeptides may modulate glucose or free fatty acid uptake by skeletal  
 CC muscle cells or by adipocytes; or inhibit binding of A-peptide to factor  
 CC VIIA. The PRO polypeptides can be used in assays to identify molecules  
 CC involved in binding interactions. The polynucleotides encoding PRO  
 CC polypeptides can be used to generate probes, antisense RNA/DNA,  
 CC transgenic or knock out animals and can be used in gene therapy  
 XX  
 SQ Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 4; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATAGGSGADPGSGLLRLLSFCVLLAGLCRNSVERKIYIPLNKTAPCVLLNATHOI 60  
 Db 1 MATAGGSGADPGSGLLRLLSFCVLLAGLCRNSVERKIYIPLNKTAPCVLLNATHOI 60

QY 61 GCQSSISGDTGVHVVKEEDLQWVLTGDPNPPYVLLSKHFTDLMEKLGRTSRIAG 120  
 Db 61 GCQSSISGDTGVHVVKEEDLQWVLTGDPNPPYVLLSKHFTDLMEKLGRTSRIAG 120

QY 121 LAVSLTKPSASGFSFVSQCPNDGFGVYNSGPEFAHCRFQWNSLGNLAYEDFSFPI 180  
 Db 121 LAVSLTKPSASGFSFVSQCPNDGFGVYNSGPEFAHCRFQWNSLGNLAYEDFSFPI 180

QY 181 FLEEDENETKVIKQCYQDHNLSONGSAFTPLCAMQLFSHMAVISTATCMRRSSIQTSTF 240  
 Db 181 FLEEDENETKVIKQCYQDHNLSONGSAFTPLCAMQLFSHMAVISTATCMRRSSIQTSTF 240

QY 241 SINPEIVCDPLSDYNNWSMLKPIINTTGLKPDVVVAATRLDSRSFFWNPVAPGSAVA 300  
 Db 241 SINPEIVCDPLSDYNNWSMLKPIINTTGLKPDVVVAATRLDSRSFFWNPVAPGSAVA 300

QY 301 SFVTQLAAAEALQKAPDVTTLPRNVFVFQGETFDYIGSSRMVYDMKGFPPVQLENVD 360  
 Db 301 SFVTQLAAAEALQKAPDVTTLPRNVFVFQGETFDYIGSSRMVYDMKGFPPVQLENVD 360

QY 361 SFVELGQVALRTSLELMHETDPSQKNSVRNQVEDLLATLEKSGAGVPVILRRPNQSQ 420  
 Db 361 SFVELGQVALRTSLELMHETDPSQKNSVRNQVEDLLATLEKSGAGVPVILRRPNQSQ 420

QY 421 PLPPSSLQRFLEARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPWLSPEDLNIV 480  
 Db 421 PLPPSSLQRFLEARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPWLSPEDLNIV 480

QY 481 TDTAKALADVATVILGALYELAGGTFNSDTVQADPQTVTRLLYGLFIKANNWFQSIILQ 540  
 Db 481 TDTAKALADVATVILGALYELAGGTFNSDTVQADPQTVTRLLYGLFIKANNWFQSIILQ 540

QY 541 DLSRYLGDGPIQHYIAVSPFTTYYVOVALANLTGTVNLTREOCQDPSKVPSEKNDLY 600  
 Db 541 DLSRYLGDGPIQHYIAVSPFTTYYVOVALANLTGTVNLTREOCQDPSKVPSEKNDLY 600

QY 601 EYSWVQGPLHSNETDRLPCVRSSTARALASPAFELSOWSSTSEYTSWTESRWKDIRARI 660  
 Db 601 EYSWVQGPLHSNETDRLPCVRSSTARALASPAFELSOWSSTSEYTSWTESRWKDIRARI 660

QY 661 FLIASKELELITLVGFGILIFSLIVTYCINAKADVLFIAPREPQAVSY 709  
 Db 661 FLIASKELELITLVGFGILIFSLIVTYCINAKADVLFIAPREPQAVSY 709

RESULT 3  
 AAG63935  
 ID AAG63935 standard; protein; 709 AA.

XX AAG63935;  
 AC 29-OCT-2001 (first entry)  
 DT Amino acid sequence of human KIAA0253.  
 XX KIAA0253; presenilin; Alzheimer's disease.  
 KW Homo sapiens.  
 OS WO200167109-A1.  
 PN 13-SEP-2001.  
 PD 09-MAR-2001; 2001WO-GB001057.  
 PF 10-MAR-2000; 2000GB-00005894.  
 PR (GLAX ) GLAXO GROUP LTD.  
 XX PA Hale RS, Rowley A, Blackstock W;  
 XX WPI; 2001-522960/57.  
 DR N-PSDB; AAH74992.  
 XX PT Identifying a modulator of presenilin function by determining the ability  
 of presenilin to bind to a KIAA0253 polypeptide in the presence and  
 of absence of a test compound, useful in the treatment or prophylaxis of  
 PT Alzheimer's disease.  
 XX PS Claim 13; Page 34-36; 48pp; English.  
 XX CC The present sequence represents human KIAA0253. KIAA0253 binds to  
 presenilin. The specification describes a method of identifying a  
 CC modulator of presenilin function or KIAA0253 function. The method  
 CC comprises determining presenilin activity or KIAA0253 activity in the  
 CC presence and absence of a test compound, where presenilin activity is  
 CC determined by its ability to bind to KIAA0253. A modulator of presenilin  
 CC or KIAA0253 polypeptide is useful in the manufacture of a medicament for  
 CC the treatment or prophylaxis of Alzheimer's disease. The KIAA0253  
 CC polynucleotide and KIAA0253 polypeptide are useful in the treatment,  
 CC prophylaxis or diagnosis of Alzheimer's disease  
 XX SQ Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 4; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATAGGSGADPGSGLLRLLSFCVLLAGLCRNSVERKIYIPLNKTAPCVLLNATHOI 60  
 Db 1 MATAGGSGADPGSGLLRLLSFCVLLAGLCRNSVERKIYIPLNKTAPCVLLNATHOI 60

QY 61 GCQSSISGDTGVHVVKEEDLQWVLTGDPNPPYVLLSKHFTDLMEKLGRTSRIAG 120  
 Db 61 GCQSSISGDTGVHVVKEEDLQWVLTGDPNPPYVLLSKHFTDLMEKLGRTSRIAG 120

QY 121 LAVSLTKPSASGFSFVSQCPNDGFGVYNSGPEFAHCRFQWNSLGNLAYEDFSFPI 180  
 Db 121 LAVSLTKPSASGFSFVSQCPNDGFGVYNSGPEFAHCRFQWNSLGNLAYEDFSFPI 180

QY 181 FLEEDENETKVIKQCYQDHNLSONGSAFTPLCAMQLFSHMAVISTATCMRRSSIQTSTF 240  
 Db 181 FLEEDENETKVIKQCYQDHNLSONGSAFTPLCAMQLFSHMAVISTATCMRRSSIQTSTF 240

QY 241 SINPEIVCDPLSDYNNWSMLKPIINTTGLKPDVVVAATRLDSRSFFWNPVAPGSAVA 300  
 Db 241 SINPEIVCDPLSDYNNWSMLKPIINTTGLKPDVVVAATRLDSRSFFWNPVAPGSAVA 300

QY 301 SFVTQLAAAEALQKAPDVTTLPRNVFVFQGETFDYIGSSRMVYDMKGFPPVQLENVD 360  
 Db 301 SFVTQLAAAEALQKAPDVTTLPRNVFVFQGETFDYIGSSRMVYDMKGFPPVQLENVD 360

361 SFVELGVALRTSLELWMHTDPVSQKNSVRNOVEDLLATLEKSGAGVPAVILRRNQSQ 420  
 361 SFVELGVALRTSLELWMHTDPVSQKNSVRNOVEDLLATLEKSGAGVPAVILRRNQSQ 420  
 421 PLPPSSLRFLARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFFV 480  
 421 PLPPSSLRFLARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFFV 480  
 481 TDTAKALADVAIVLGRALYELAGTNFSDTVQADPQTVTRLLYGLFIKANNWFQSIILRQ 540  
 481 TDTAKALADVAIVLGRALYELAGTNFSDTVQADPQTVTRLLYGLFIKANNWFQSIILRQ 540  
 541 DLRSYLGDPLOHYIAVSSPTNTTVVQYALANLTGTVVNLTRQCDPSKVPSEKNDLY 600  
 541 DLRSYLGDPLOHYIAVSSPTNTTVVQYALANLTGTVVNLTRQCDPSKVPSEKNDLY 600  
 601 EYSWVGPLHSNETDRLPRCVSTARLARALSPAFELSQWSSTESTWTSRWKDIRARI 660  
 601 EYSWVGPLHSNETDRLPRCVSTARLARALSPAFELSQWSSTESTWTSRWKDIRARI 660  
 661 FLIASKELELITLVGFGILIFSLIVTYCINAKADVLFIAPREPAGVSY 709  
 661 FLIASKELELITLVGFGILIFSLIVTYCINAKADVLFIAPREPAGVSY 709

RESULT 4

AM39096  
 ID AM39096 standard; protein; 709 AA.  
 XX AM39096;  
 AC  
 DT 22-OCT-2001 (first entry)  
 XX  
 DE Human polypeptide SEQ ID NO 2241.  
 XX  
 KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;  
 KW peripheral nervous system; neuropathy; central nervous system; CNS;  
 KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;  
 KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;  
 KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;  
 KW leukaemia.  
 OS Homo sapiens.  
 XX  
 PN WO200153312-A1.  
 XX  
 PD 26-JUL-2001.  
 XX  
 PF 26-DEC-2000; 2000WO-US034263.  
 XX  
 PR 23-DEC-1999; 99US-00471275.  
 PR 21-JAN-2000; 2000US-00488725.  
 PR 25-APR-2000; 2000US-00552317.  
 PR 20-JUN-2000; 2000US-00598042.  
 PR 19-JUL-2000; 2000US-00620312.  
 PR 03-AUG-2000; 2000US-00653450.  
 PR 14-SEP-2000; 2000US-00662191.  
 PR 19-OCT-2000; 2000US-00693036.  
 PR 29-NOV-2000; 2000US-00727344.  
 XX  
 PA (HYSE-) HYSEQ INC.  
 XX  
 PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;  
 PI Wang J, Wang Z, Wehman T, Xu C, Xue AJ, Yang Y, Zhang J, Zhao QB;  
 PI Zhou P, Goodrich R, Drmanac RT;  
 XX  
 DR WPI; 2001-442253/47.  
 DR N-PSDB; AA158252.  
 XX  
 PT Novel nucleic acids and polypeptides, useful for treating disorders such  
 PT as central nervous system injuries.  
 XX

Example 4; SEQ ID NO 2241; 10078pp; English.

The invention relates to human nucleic acids (AA157798-AA161369) and the encoded polypeptides (AA38642-AA44213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression, Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemia and C.N.S disorders. Note: The sequence data for this patent did not form part of the printed specification

Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 4; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 MATAGGGGADPGSRGLRLLSFCVLLAGLCRNSVERKIYIPLNKTAFCVRLLNATHOI 60  
 DB 1 MATAGGGGADPGSRGLRLLSFCVLLAGLCRNSVERKIYIPLNKTAFCVRLLNATHOI 60  
 QY 61 GCQSSISGDTGVHVVKEEDLQWVLTGPNPNPVMVLESKHFTRLMELKAGRTSRIAG 120  
 DB 61 GCQSSISGDTGVHVVKEEDLQWVLTGPNPNPVMVLESKHFTRLMELKAGRTSRIAG 120  
 QY 121 LAVSLTKPSAGSPSPVOCNDGCVSNVSGPFAHCREIQMNSLGNGLAYEDSFPI 180  
 DB 121 LAVSLTKPSAGSPSPVOCNDGCVSNVSGPFAHCREIQMNSLGNGLAYEDSFPI 180  
 QY 181 FLEEDENETKVIKQCYQDHNLSQNSAPTFPLCAMQLFSGHMAVISTATCMRRSSIQSTF 240  
 DB 181 FLEEDENETKVIKQCYQDHNLSQNSAPTFPLCAMQLFSGHMAVISTATCMRRSSIQSTF 240  
 QY 241 SINPEIVCDPLSDYNVWSMLKPIINTGTLKPDVVVAAATRLDSRFFWNVAPGASAVA 300  
 DB 241 SINPEIVCDPLSDYNVWSMLKPIINTGTLKPDVVVAAATRLDSRFFWNVAPGASAVA 300  
 QY 301 SFVTQLAAAEALQKAPDVTTLPRNVMEVFQGETFDYIGSSRWYDMKGPVQLENVD 360  
 DB 301 SFVTQLAAAEALQKAPDVTTLPRNVMEVFQGETFDYIGSSRWYDMKGPVQLENVD 360  
 QY 361 SFVELGVALRTSLELWMHTDPVSQKNSVRNOVEDLLATLEKSGAGVPAVILRRNQSQ 420  
 DB 361 SFVELGVALRTSLELWMHTDPVSQKNSVRNOVEDLLATLEKSGAGVPAVILRRNQSQ 420  
 QY 421 PLPPSSLRFLARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFFV 480  
 DB 421 PLPPSSLRFLARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFFV 480  
 QY 481 TDTAKALADVAIVLGRALYELAGTNFSDTVQADPQTVTRLLYGLFIKANNWFQSIILRQ 540  
 DB 481 TDTAKALADVAIVLGRALYELAGTNFSDTVQADPQTVTRLLYGLFIKANNWFQSIILRQ 540  
 QY 541 DLRSYLGDPLOHYIAVSSPTNTTVVQYALANLTGTVVNLTRQCDPSKVPSEKNDLY 600  
 DB 541 DLRSYLGDPLOHYIAVSSPTNTTVVQYALANLTGTVVNLTRQCDPSKVPSEKNDLY 600  
 QY 601 EYSWVGPLHSNETDRLPRCVSTARLARALSPAFELSQWSSTESTWTSRWKDIRARI 660  
 DB 601 EYSWVGPLHSNETDRLPRCVSTARLARALSPAFELSQWSSTESTWTSRWKDIRARI 660  
 QY 661 FLIASKELELITLVGFGILIFSLIVTYCINAKADVLFIAPREPAGVSY 709  
 DB 661 FLIASKELELITLVGFGILIFSLIVTYCINAKADVLFIAPREPAGVSY 709

RESULT 5  
AAU79385  
ID AAU79385 standard; protein; 709 AA.  
XX  
AC  
AAU79385;  
XX  
DT 02-JUL-2002 (first entry)  
XX  
DE Human presenilin associated membrane protein (PAMP).  
XX  
KW PAMP; Presenilin associated membrane protein; neuropsychiatric disorder;  
KW neurodevelompental disorder; schizophrenia; neurodegenerative disorder;  
KW Alzheimer's disease; Lewy body variant; mild cognitive impairment;  
KW depression; benign senescent forgetfulness; psychosis; schizoaffective;  
KW schizotypal; schizophreniaform; delusional disorder; personality disorder;  
KW schizoid personality disorder; schizotypal personality disorder;  
KW paranoid personality disorder; human.  
XX  
OS Homo sapiens.  
XX  
XX WO200218434-A2.  
FN  
XX  
PD 07-MAR-2002.  
XX  
XX 31-AUG-2001; 2001WO-CA001243.  
PF  
XX 01-SEP-2000; 2000US-0229889P.  
PR  
XX (UTOR ) UNIV TORONTO GOVERNING COUNCIL.  
PA  
XX St George- Hyslop PH, Fraser PE;  
XX WPI: 2002-329756/36.  
DR N-PSDB; ABR48341.  
XX  
XX Use of (gene encoding) presenilin-associated membrane protein as reagent  
PT for diagnosing individuals predisposed to or having  
PT neuropsychiatric/neurodevelompental disorder, or as therapeutic target  
PT for treating disorder.  
XX  
XX Example 1; Fig 1A-B; 69pp; English.  
PS  
XX The invention describes the use of presenilin-associated membrane protein  
CC (PAMP) as a reagent for diagnosing individuals predisposed to or having  
CC neuropsychiatric or neurodevelompental disorder (NND), or for identifying  
CC a compound useful for treating NND, or as a therapeutic target for  
CC treatment of NND. The protein is useful for diagnosing individuals  
CC predisposed to or having NND e.g. schizophrenia, by detecting mutation in  
CC gene encoding PAMP by measuring level of transcriptional activity of the  
CC gene, or by measuring PAMP activity which comprises PAMP expression level  
CC or activity of a product of a PAMP modified substrate. Transgenic animal  
CC models can be screened for compounds that modulate activity of PAMP and  
CC the presenilins. The identified compounds, or gene therapy with PAMP, can  
CC be used to treat neurodevelompental disorders, neurodegenerative  
CC disorders e.g. Alzheimer's disease and Lewy body variant, and  
CC neuropsychiatric disorders such as depression, mild cognitive impairment  
CC and benign senescent forgetfulness, schizophrenia and related psychoses  
CC e.g. schizoaffective, schizotypal, schizophreniaform and delusional  
CC disorders and personality disorders such as schizoid personality  
CC disorder, schizotypal personality disorder and paranoid personality  
CC disorder. This is the amino acid sequence of a human presenilin  
CC associated membrane protein (PAMP), described in the invention  
XX  
SQ Sequence 709 AA;  
Query Match 100.0%; Score 3687; DB 5; Length 709;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 MATAGGSGADPGSGLLRLLSFCVLLAGLCRNSVERKIYIPLNKTAPCVLLNATHOI 60  
DB 1 MATAGGSGADPGSGLLRLLSFCVLLAGLCRNSVERKIYIPLNKTAPCVLLNATHOI 60

QY 61 GCSSISGDTGVHVVKEEDLQWVLTGPNPPYVWVLESKHFTRLMEKLGKRTSRIAG 120  
DB 61 GCSSISGDTGVHVVKEEDLQWVLTGPNPPYVWVLESKHFTRLMEKLGKRTSRIAG 120  
QY 121 LAVSLTKPSPASGSPSVOCNDGFGVYSNSVGPFAHCHREIQWNSLGNGLAYEDFSFPI 180  
DB 121 LAVSLTKPSPASGSPSVOCNDGFGVYSNSVGPFAHCHREIQWNSLGNGLAYEDFSFPI 180  
QY 181 FLEDENETKVIKQCYQDHNLSQNGSAPTFPLCAMQLFSHMAVISTATCMRRSSIQTSTF 240  
DB 181 FLEDENETKVIKQCYQDHNLSQNGSAPTFPLCAMQLFSHMAVISTATCMRRSSIQTSTF 240  
QY 241 SINPRIVCDPLSDYNVWMLKPIINTTGLKPDVVVAATRLDSRSFFWVAPGASAVA 300  
DB 241 SINPRIVCDPLSDYNVWMLKPIINTTGLKPDVVVAATRLDSRSFFWVAPGASAVA 300  
QY 301 SFVTQLAAAEALOKAPDVTTLPNNVMVFFQGETFDYIGSSRMVYDMEKGPVQLENVD 360  
DB 301 SFVTQLAAAEALOKAPDVTTLPNNVMVFFQGETFDYIGSSRMVYDMEKGPVQLENVD 360  
QY 361 SFVELGQVALRTSLELWMHTDPVSQKNESVRNQVEDLLATLEKSGAGVPAVILRRPNQSQ 420  
DB 361 SFVELGQVALRTSLELWMHTDPVSQKNESVRNQVEDLLATLEKSGAGVPAVILRRPNQSQ 420  
QY 421 PLPPSSLORFLEARNISGVVLADHSGAFHKKYQSIYDTAENINVSYPWLSPEEDLNFTV 480  
DB 421 PLPPSSLORFLEARNISGVVLADHSGAFHKKYQSIYDTAENINVSYPWLSPEEDLNFTV 480  
QY 481 TDTAKALADVATVLCGRALYELAGTNFSDTVQADPTVTRLLYGLFKANNWFSQILRQ 540  
DB 481 TDTAKALADVATVLCGRALYELAGTNFSDTVQADPTVTRLLYGLFKANNWFSQILRQ 540  
QY 541 DLRSYLGDPLOHYIAVSSPTNTTVVQYALANLGTVVNLTRQCDPSKVPSENKDIY 600  
DB 541 DLRSYLGDPLOHYIAVSSPTNTTVVQYALANLGTVVNLTRQCDPSKVPSENKDIY 600  
QY 601 EYSWQGPPLHNETDRLPRCVSTARLARASPAFELSQWSSTESTWTSWKDIRARI 660  
DB 601 EYSWQGPPLHNETDRLPRCVSTARLARASPAFELSQWSSTESTWTSWKDIRARI 660  
QY 661 FLIASKELELITLVGFGILFSLIVTYCINAKADVLFIAPREPGAVSY 709  
DB 661 FLIASKELELITLVGFGILFSLIVTYCINAKADVLFIAPREPGAVSY 709  
RESULT 6  
ID AAU98012 standard; protein; 709 AA.  
XX  
AC AAU98012;  
XX  
DT 27-AUG-2002 (first entry)  
DE Human aminopeptidase Nicastrin.  
XX  
KW Human; Nicastrin; aminopeptidase; Alzheimer's disease; presenilin;  
KW amyloid precursor protein; APP; vaccine; nootropic; neuroprotective;  
KW antiinflammatory; cardiant; cytostatic; inflammation; cancer;  
KW cardiovascular disease; Notch.  
OS Homo sapiens.  
XX  
FH Key Location/Qualifiers  
FT Domain 207..503  
FT /label= Aminopeptidase domain  
FT /note= "This domain is claimed in claim 8"  
XX  
XX WO200229023-A1.  
XX  
PD 11-APR-2002.  
XX  
PF 02-OCT-2001; 2001WO-GB004390.  
XX

02-OCT-2000; 2000GB-00024086.  
 (INPH-) INPHARMATICA LTD.  
 Fagan RJ, Overington JP, Swindells MB, Weir M;  
 WPI; 2002-463232/49.  
 N-PSDB; ABK52902.  
 Nicastrin protein identified as an aminopeptidase, useful for diagnosis, prevention and treatment of a disease e.g. inflammation, cancer, or cardiovascular disease.  
 Disclosure: Page 47; 68pp; English.  
 The invention relates to a polypeptide consisting of the aminopeptidase domain (I) of the Nicastrin polypeptide. Nicastrin is included in the presenilin/B-APP (amyloid precursor protein) complex and is involved in Alzheimer's disease. Also included are an aminopeptidase inhibitor, for use in the treatment and diagnosis of Alzheimer's disease, which effectively inhibits the aminopeptidase activity of the Nicastrin polypeptide; a purified nucleic acid molecule which encodes (I); a vector comprising the nucleic acid; a host cell transformed with the vector; identifying (M1) a candidate ligand for the treatment of Alzheimer's disease, by testing the ability of an aminopeptidase inhibitor to bind to the Nicastrin polypeptide or to (I), and selecting as a candidate agent, an aminopeptidase inhibitor that effectively inhibits the biological activity of the polypeptide; a vaccine composition comprising (I) or its encoding nucleic acid; a transgenic or knockout non-human animal that has been transformed to express a higher, lower or absent level of (I); and diagnosing (M2) the susceptibility of a patient to Alzheimer's disease, by examining the Nicastrin polypeptide or gene sequence in the patient or in the tissue from the patient and diagnosing as susceptible those patients in which a mutation is contained in a region of the sequence that is responsible for aminopeptidase activity in the full length protein. A pharmaceutical based on the inhibitor, peptide, nucleic acid, vector or antibody is useful in therapy or diagnosis of inflammation, cancer, or cardiovascular disease. (M1) is useful for identifying a ligand which prevents the activity of the polypeptide as an aminopeptidase, and inhibits the interaction of the aminopeptidase domain of Nicastrin with a naturally-occurring peptide, such as the full length beta amyloid precursor protein (B-APP), the beta-secretase cleaved version of the B-APP, the alpha-secretase cleaved version of B-APP, presenilin 1, presenilin 2, or a member of the Notch protein family. The present sequence represents Nicastrin

Sequence 709 AA;  
 Query Match 100.0%; Score 3687; DB 5; Length 709;  
 Best Local Similarity 100.0%; P-Ed. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATAGGGGADPGSRGLRLLSFCVLLA GICRGNVSVERKTYIPLNKTPACVRLINATHQI 60  
 DB 1 MATAGGGGADPGSRGLRLLSFCVLLA GICRGNVSVERKTYIPLNKTPACVRLINATHQI 60  
 QY 61 GCOSSTSGDTGVTHVVEKEEDLQWLTDGNPPVWLLESKHFTDRLMEKLGKTSRIAG 120  
 DB 61 GCOSSTSGDTGVTHVVEKEEDLQWLTDGNPPVWLLESKHFTDRLMEKLGKTSRIAG 120  
 QY 121 LAVSLTKPSASGFSPSVQCPNDGFGVYSNGYGEFAHCRIOVNSLGNGLAYEDSFPI 180  
 DB 121 LAVSLTKPSASGFSPSVQCPNDGFGVYSNGYGEFAHCRIOVNSLGNGLAYEDSFPI 180  
 QY 181 FLLEDENETKVIKQCYQDNLNSQNGSAPTPPLCAQOLFPMHIAVISTATCMRSSSQSTF 240  
 DB 181 FLLEDENETKVIKQCYQDNLNSQNGSAPTPPLCAQOLFPMHIAVISTATCMRSSSQSTF 240  
 QY 241 SINPEIVCDPLSDYNVMSMLKPIINTTCTLAKPDORVVVAATLDRSRSPFNVAQSAVA 300  
 DB 241 SINPEIVCDPLSDYNVMSMLKPIINTTCTLAKPDORVVVAATLDRSRSPFNVAQSAVA 300  
 QY 301 SFVTQLAAAEALQKAPDVTTLPRNVMEVFQGETFDYIGSSRMVYDMEKGFVQLENVD 360

DB 301 SFVTQLAAAEALQKAPDVTTLPRNVMEVFQGETFDYIGSSRMVYDMEKGFVQLENVD 360  
 QY 361 SFVELGQVALRTSLLELWMTDPSVQKNESVRNQVEDLLATLEKSGAGVPAVILRRPNQSQ 420  
 DB 361 SFVELGQVALRTSLLELWMTDPSVQKNESVRNQVEDLLATLEKSGAGVPAVILRRPNQSQ 420  
 QY 421 PLPSSLQRLRARNISGVVLAHSGAFHNKYQSYDYTAENINVSYPEWLSPEEDLNFV 480  
 DB 421 PLPSSLQRLRARNISGVVLAHSGAFHNKYQSYDYTAENINVSYPEWLSPEEDLNFV 480  
 QY 481 TDTAKALADVATVIGRALYELAGSTNFSPTVQADPQTVTRLLYGLFKANNWFQSLRQ 540  
 DB 481 TDTAKALADVATVIGRALYELAGSTNFSPTVQADPQTVTRLLYGLFKANNWFQSLRQ 540  
 QY 541 DLRSYLGDPQLQHYIAVSSPTNTTYVQVALANLTGTVWNLTRQCDPSKVPSENKDL 600  
 DB 541 DLRSYLGDPQLQHYIAVSSPTNTTYVQVALANLTGTVWNLTRQCDPSKVPSENKDL 600  
 QY 601 EYSWVGPLHSNETDLPRCVRSTARARALSPAFLSQWSSSTESTYTSRWKDIRARI 660  
 DB 601 EYSWVGPLHSNETDLPRCVRSTARARALSPAFLSQWSSSTESTYTSRWKDIRARI 660  
 QY 661 FLIASKELELITLVGFGILIFSLIVTYCINAKADVLFIAPREPQAVSY 709  
 DB 661 FLIASKELELITLVGFGILIFSLIVTYCINAKADVLFIAPREPQAVSY 709

RESULT 7  
 ABO17716  
 ID ABO17716 standard; protein; 709 AA.  
 XX ABO17716;  
 AC ABO17716;  
 XX 26-AUG-2003 (first entry)  
 DE Novel human secreted and transmembrane protein PRO4317.  
 XX Human; secreted and transmembrane protein; PRO; anti-inflammatory;  
 KW antiarteriosclerotic; cardiant; anti-infertility; anti-HIV; cytostatic;  
 KW antidiabetic; gene therapy; tumour necrosis factor (TNF)-alpha release;  
 KW TNF-alpha release; cell proliferation; cell differentiation;  
 KW gene expression modulator; proteoglycan release; cytokine release;  
 KW tumour; inflammatory disease; organ failure; atherosclerosis;  
 KW cardiac injury; infertility; birth defect; premature aging; AIDS;  
 KW acquired immunodeficiency syndrome; cancer; diabetic complication;  
 KW chromosome mapping; gene mapping; pharmaceutical; diagnostic; biosensor;  
 KW bioreactor; tissue typing.  
 OS Homo sapiens.  
 XX US2003032156-A1.  
 XX 13-FEB-2003.  
 XX 06-MAY-2002; 2002US-00140474.  
 XX 31-MAR-1997; 97WO-US005230.  
 PR 12-JUN-1998; 98WO-US012456.  
 PR 14-JUL-1998; 98WO-US014552.  
 PR 28-AUG-1998; 98WO-US017888.  
 PR 10-SEP-1998; 98WO-US016824.  
 PR 14-SEP-1998; 98WO-US019093.  
 PR 14-SEP-1998; 98WO-US019094.  
 PR 14-SEP-1998; 98WO-US019177.  
 PR 16-SEP-1998; 98WO-US019330.  
 PR 17-SEP-1998; 98WO-US019437.  
 PR 07-OCT-1998; 98WO-US021141.  
 PR 29-OCT-1998; 98WO-US022991.  
 PR 29-OCT-1998; 98WO-US022992.  
 PR 20-NOV-1998; 98WO-US024855.  
 PR 01-DEC-1998; 98WO-US025108.  
 PR 05-JAN-1999; 99WO-US000106.

08-MAR-1999; 99WO-US005028.  
 10-MAR-1999; 99WO-US005190.  
 20-APR-1999; 99WO-US008615.  
 14-MAY-1999; 99WO-US010733.  
 02-JUN-1999; 99WO-US012252.  
 01-SEP-1999; 99WO-US020111.  
 08-SEP-1999; 99WO-US020594.  
 13-SEP-1999; 99WO-US020944.  
 15-SEP-1999; 99WO-US021090.  
 15-SEP-1999; 99WO-US021547.  
 05-OCT-1999; 99WO-US023089.  
 29-NOV-1999; 99WO-US028214.  
 30-NOV-1999; 99WO-US028313.  
 30-NOV-1999; 99WO-US028409.  
 01-DEC-1999; 99WO-US028301.  
 01-DEC-1999; 99WO-US028634.  
 02-DEC-1999; 99WO-US028551.  
 02-DEC-1999; 99WO-US028564.  
 02-DEC-1999; 99WO-US028565.  
 16-DEC-1999; 99WO-US030095.  
 20-DEC-1999; 99WO-US030911.  
 20-DEC-1999; 99WO-US030999.  
 22-DEC-1999; 99WO-US030720.  
 30-DEC-1999; 99WO-US031243.  
 30-DEC-1999; 99WO-US031274.  
 05-JAN-2000; 2000WO-US000219.  
 06-JAN-2000; 2000WO-US000277.  
 06-JAN-2000; 2000WO-US000376.  
 11-FEB-2000; 2000WO-US003565.  
 18-FEB-2000; 2000WO-US004341.  
 18-FEB-2000; 2000WO-US004342.  
 22-FEB-2000; 2000WO-US004414.  
 24-FEB-2000; 2000WO-US004914.  
 24-FEB-2000; 2000WO-US005004.  
 01-MAR-2000; 2000WO-US005601.  
 02-MAR-2000; 2000WO-US005746.  
 02-MAR-2000; 2000WO-US005841.  
 10-MAR-2000; 2000WO-US006319.  
 15-MAR-2000; 2000WO-US006884.  
 20-MAR-2000; 2000WO-US007377.  
 21-MAR-2000; 2000WO-US007532.  
 30-MAR-2000; 2000WO-US008439.  
 17-MAY-2000; 2000WO-US013705.  
 22-MAY-2000; 2000WO-US014042.  
 30-MAY-2000; 2000WO-US014941.  
 02-JUN-2000; 2000WO-US015264.  
 28-JUL-2000; 2000WO-US020710.  
 11-AUG-2000; 2000WO-US022031.  
 23-AUG-2000; 2000WO-US023522.  
 24-AUG-2000; 2000WO-US023328.  
 08-NOV-2000; 2000WO-US030952.  
 10-NOV-2000; 2000WO-US030873.  
 01-DEC-2000; 2000WO-US032678.  
 20-DEC-2000; 2000US-00747259.  
 20-DEC-2000; 2000WO-US034956.  
 28-FEB-2001; 2001US-00796498.  
 28-FEB-2001; 2001WO-US006520.  
 01-MAR-2001; 2001WO-US006666.  
 09-MAR-2001; 2001US-00802706.  
 14-MAR-2001; 2001US-00808689.  
 22-MAR-2001; 2001US-00816744.  
 05-APR-2001; 2001US-00828366.  
 10-MAY-2001; 2001US-00854208.  
 10-MAY-2001; 2001US-00854280.  
 18-MAY-2001; 2001US-00860216.  
 25-MAY-2001; 2001US-00866028.  
 25-MAY-2001; 2001US-00866034.  
 25-MAY-2001; 2001WO-US017092.  
 01-JUN-2001; 2001US-00872035.  
 01-JUN-2001; 2001WO-US017800.  
 05-JUN-2001; 2001US-00874503.  
 14-JUN-2001; 2001US-00882636.  
 19-JUN-2001; 2001US-00886342.

20-JUN-2001; 2001WO-US019692.  
 21-JUN-2001; 2001US-00887879.  
 22-JUN-2001; 2001WO-US020116.  
 29-JUN-2001; 2001WO-US021066.  
 09-JUL-2001; 2001WO-US021735.  
 18-JUL-2001; 2001US-00908827.  
 06-AUG-2001; 2001US-00924419.  
 09-AUG-2001; 2001US-00927796.  
 16-AUG-2001; 2001US-00931836.  
 19-DEC-2001; 2001US-00028072.

(GETH ) GENENTECH INC.

Baker KP, Beresini M, DeForge L, Desnoyers L, Filvaroff E, Gao W;  
 Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;  
 PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;  
 WPI; 2003-341980/32.  
 N-PSDB; ACD23953.

New secreted and transmembrane PRO nucleic acids, for treating  
 inflammation, organ failure, atherosclerosis, cardiac injury,  
 infertility, birth defects, premature aging, acquired immunodeficiency  
 syndrome (AIDS), or cancer.

Claim 12; Fig 202; 660pp; English.

The invention describes an isolated nucleic acid (1) comprising, or which  
 has 80 % sequence identity to, or the full-length coding sequence of, one  
 of 275 nucleotide sequences, and which encodes a corresponding  
 polypeptide selected from 275 amino acid sequences, where all sequences  
 are given in the specification. The polypeptide encoded by (1) is used to  
 detect PRO polypeptides, link a bioactive molecule to a cell expressing a  
 PRO polypeptide, modulate a biological activity of a cell, stimulate the  
 release of tumour necrosis factor (TNF)-alpha from human blood, modulate  
 the uptake of glucose or free fatty acid by cells, stimulate or inhibit  
 the proliferation or differentiation of cells or gene expression,  
 stimulate the release of proteoglycans, inhibit the binding of A-peptide  
 from peripheral blood mononuclear cells, inhibit the binding of A-peptide  
 to factor VIIA, or detect the presence of tumour in a mammal. The nucleic  
 acid and polypeptide encoded by it, are useful for treating inflammatory  
 diseases, organ failure, atherosclerosis, cardiac injury, infertility,  
 birth defects, premature aging, acquired immunodeficiency syndrome  
 (AIDS), cancer, or diabetic complications. The nucleic acid is useful as  
 hybridisation probes, in chromosome and gene mapping, and in generating  
 antisense RNA or DNA. The polypeptides are useful as pharmaceuticals,  
 diagnostics, biosensors or bioreactors. Both are useful in tissue typing.  
 This is the amino acid sequence of a novel human secreted and  
 transmembrane PRO polypeptide

Sequence 709 AA;  
 Query Match 100.0%; Score 3687; DB 6; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATAGGGGADPGSGLLRLLSFCVLLAGLCRGNSVERKIYIPLNKATPCVLLNATHQI 60  
 Db 1 MATAGGGGADPGSGLLRLLSFCVLLAGLCRGNSVERKIYIPLNKATPCVLLNATHQI 60  
 QY 61 GCQSSISGDTGVIHVVEKEEDLQWLTGDPNPPYVLLSKHFTDLMEKLGRTSRIAG 120  
 Db 61 GCQSSISGDTGVIHVVEKEEDLQWLTGDPNPPYVLLSKHFTDLMEKLGRTSRIAG 120  
 QY 121 LAVSLTKPSPASGSPSVQCPNDGFGVYSNSGPGFAHCREIOWNSLGNLAYEDFSPPI 180  
 Db 121 LAVSLTKPSPASGSPSVQCPNDGFGVYSNSGPGFAHCREIOWNSLGNLAYEDFSPPI 180  
 QY 181 FLEEDENETKVKIQCQYQDHNLSONGSAFTPLCAMQLFSHMAVISTATCMRRSSISTQSTF 240  
 Db 181 FLEEDENETKVKIQCQYQDHNLSONGSAFTPLCAMQLFSHMAVISTATCMRRSSISTQSTF 240  
 QY 241 SINPEIVCDPLSDYNVWMLKPINTTGLTKPDORVVVAATRLDSRSFFWNVAPGESA 300



Db	241	SINPEICDPLSDINVMMLKPIINTTGLKPDRRVVAAATRLDSRSFFMNVAFCAESAVA	300	PR	24-OCT-1997;	97US-0062814P.
				PR	24-OCT-1997;	97US-0062816P.
QY	301	SFTVQLAAALQKAPDVTTLPRNMFVFCQGETFDYIGSSRMVYDMKPKFPVQLENVD	360	PR	24-OCT-1997;	97US-0063045P.
				PR	24-OCT-1997;	97US-0063082P.
Db	301	SFTVQLAAALQKAPDVTTLPRNMFVFCQGETFDYIGSSRMVYDMKPKFPVQLENVD	360	PR	27-OCT-1997;	97US-0063327P.
				PR	27-OCT-1997;	97US-0063327P.
QY	361	SFVELGQVALRTSLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPAVILRRPNQSO	420	PR	28-OCT-1997;	97US-0063329P.
				PR	28-OCT-1997;	97US-0063350P.
Db	361	SFVELGQVALRTSLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPAVILRRPNQSO	420	PR	28-OCT-1997;	97US-00633561P.
				PR	28-OCT-1997;	97US-0063704P.
QY	421	PLPSSQLRFLARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFV	480	PR	29-OCT-1997;	97US-0063733P.
				PR	29-OCT-1997;	97US-0063735P.
Db	421	PLPSSQLRFLARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFV	480	PR	29-OCT-1997;	97US-0063738P.
				PR	29-OCT-1997;	97US-0064248P.
QY	481	TDKAKALADVATVIGRALYELAGTNSDVTQADPQVTVTLGLYFLIKANNWFQSLTRQ	540	PR	03-NOV-1997;	97US-0064809P.
				PR	03-NOV-1997;	97US-0065186P.
Db	481	TDKAKALADVATVIGRALYELAGTNSDVTQADPQVTVTLGLYFLIKANNWFQSLTRQ	540	PR	12-NOV-1997;	97US-0065186P.
				PR	21-NOV-1997;	97US-0066364P.
QY	541	DLRSYLGDGFLQHYIAVSSPTNTTYVQYALANLTGTVMNLTREQCQDPKVPSENKDL	600	PR	24-NOV-1997;	97US-0066453P.
				PR	24-NOV-1997;	97US-0066511P.
Db	541	DLRSYLGDGFLQHYIAVSSPTNTTYVQYALANLTGTVMNLTREQCQDPKVPSENKDL	600	PR	24-NOV-1997;	97US-0066770P.
				PR	11-DEC-1997;	97US-0069212P.
QY	601	EYSWVGPLHSNETDRLPRCVRSTARLARALSPAFELSQMSSTESTWTESRWKDIRARI	660	PR	11-DEC-1997;	97US-0069278P.
				PR	16-DEC-1997;	97US-0069334P.
Db	601	EYSWVGPLHSNETDRLPRCVRSTARLARALSPAFELSQMSSTESTWTESRWKDIRARI	660	PR	16-DEC-1997;	97US-0069694P.
				PR	23-JAN-1998;	98US-0072320P.
QY	661	FLIASKLELELITVCGFGLIFSLIVTYCINAKADVLFIAPREPQAVSY 709		PR	04-FEB-1998;	98US-0073612P.
				PR	09-FEB-1998;	98US-0074086P.
Db	661	FLIASKLELELITVCGFGLIFSLIVTYCINAKADVLFIAPREPQAVSY 709		PR	09-FEB-1998;	98US-0074086P.
				PR	12-MAR-1998;	98US-0074092P.
RESULT 8				PR	12-MAR-1998;	98US-0077791P.
ABU80970				PR	25-MAR-1998;	98US-0078910P.
ID ABU80970 standard; protein; 709 AA.				PR	27-MAR-1998;	98US-0079294P.
XX	AC	ABU80970;		PR	27-MAR-1998;	98US-0079663P.
XX	DT	23-JUN-2003 (first entry)		PR	31-MAR-1998;	98US-0079728P.
XX	DE	Human PRO polypeptide #101.		PR	12-JUN-1998;	98US-0080165P.
XX	XX	Human; PRO polypeptide; secreted and transmembrane protein;		PR	14-SEP-1998;	98US-0080165P.
XX	KW	anti-PRO antibody; diagnostic assay; gene expression; diabetes;		PR	14-SEP-1998;	98US-008019094.
XX	KW	bone disorder; cartilage disorder; rheumatoid arthritis; obesity;		PR	16-SEP-1998;	98US-008019330.
XX	KW	sports injury; osteoarthritis; hyper-insulinaemia; hypo-insulinaemia;		PR	17-SEP-1998;	98US-008019437.
XX	KW	hearing loss; coagulation disorder; stroke; heart attack; cardiac;		PR	07-OCT-1998;	98US-008021141.
XX	KW	antidiabetic; anorectic; vulnery; antiarthritic; osteopathic;		PR	29-OCT-1998;	98US-008022991.
XX	KW	antirheumatic; auditory; cerebroprotective; angiogenic.		PR	29-OCT-1998;	98US-008022992.
XX	OS	Homo sapiens.		PR	20-NOV-1998;	98US-008024855.
XX	PN	US2003004311-A1.		PR	01-DEC-1998;	98US-008025108.
XX	PD	02-JAN-2003.		PR	05-JAN-1999;	99US-00000106.
XX	XX	19-DEC-2001; 2001US-00028072.		PR	08-MAR-1999;	99US-00005028.
XX	PR	18-JUN-1997; 97US-0049911P.		PR	10-MAR-1999;	99US-00005190.
XX	PR	26-AUG-1997; 97US-0056974P.		PR	20-APR-1999;	99US-0008615.
XX	PR	17-SEP-1997; 97US-0059113P.		PR	14-MAY-1999;	99US-0010733.
XX	PR	17-SEP-1997; 97US-0059115P.		PR	02-JUN-1999;	99US-0012252.
XX	PR	17-SEP-1997; 97US-0059117P.		PR	01-SEP-1999;	99US-0020111.
XX	PR	17-SEP-1997; 97US-0059122P.		PR	08-SEP-1999;	99US-0020594.
XX	PR	17-SEP-1997; 97US-0059184P.		PR	13-SEP-1999;	99US-0020944.
XX	PR	18-SEP-1997; 97US-0059263P.		PR	15-SEP-1999;	99US-0021090.
XX	PR	19-SEP-1997; 97US-0059352P.		PR	15-SEP-1999;	99US-0021547.
XX	PR	19-SEP-1997; 97US-0059588P.		PR	05-OCT-1999;	99US-0023089.
XX	PR	24-SEP-1997; 97US-0059836P.		PR	29-NOV-1999;	99US-0028214.
XX	PR	17-OCT-1997; 97US-0062250P.		PR	30-NOV-1999;	99US-0028313.
XX	PR	17-OCT-1997; 97US-0062285P.		PR	30-NOV-1999;	99US-0028409.
XX	PR	17-OCT-1997; 97US-0062287P.		PR	01-DEC-1999;	99US-0028634.
XX	PR	17-OCT-1997; 97US-0063755P.		PR	01-DEC-1999;	99US-0028634.
				PR	02-DEC-1999;	99US-0028551.
				PR	02-DEC-1999;	99US-0028564.
				PR	16-DEC-1999;	99US-0028565.
				PR	16-DEC-1999;	99US-0030095.
				PR	20-DEC-1999;	99US-0030911.
				PR	20-DEC-1999;	99US-0030999.
				PR	30-DEC-1999;	99US-0031243.



PR 30-DEC-1999; 99WO-US031274.  
 PR 05-JAN-2000; 2000WO-US000219.  
 PR 06-JAN-2000; 2000WO-US000277.  
 PR 06-JAN-2000; 2000WO-US000376.  
 PR 11-FEB-2000; 2000WO-US003565.  
 PR 18-FEB-2000; 2000WO-US004341.  
 PR 18-FEB-2000; 2000WO-US004342.  
 PR 22-FEB-2000; 2000WO-US004414.  
 PR 24-FEB-2000; 2000WO-US004914.  
 PR 24-FEB-2000; 2000WO-US005004.  
 PR 01-MAR-2000; 2000WO-US005601.  
 PR 02-MAR-2000; 2000WO-US005746.  
 XX  
 PA (GETH ) GENENTECH INC.  
 XX  
 XX Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;  
 PI Gerritsen WE, Goddard A, Godowski PJ, Gurney AL, Sherwood S;  
 PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;  
 XX  
 XX WPI: 2003-352836/33.  
 DR N-PSDB; ACA67094.  
 DR  
 XX  
 PT New isolated PRO polypeptide useful for treating diabetes, rheumatoid  
 PT arthritis, sports injuries, obesity, hearing loss in mammals, stroke, or  
 PT heart attack.  
 XX  
 XX Claim 12; Fig 202; 643pp; English.  
 XX  
 CC The present invention relates to the isolation of novel human PRO  
 CC polypeptides, and the polynucleotide sequences encoding them. The PRO  
 CC polypeptides are secreted and transmembrane proteins. The PRO  
 CC polypeptides and polynucleotides are useful for preparing a medicament  
 CC useful in the treatment of diabetes, bone and/or cartilage disorders  
 CC (e.g. rheumatoid arthritis, sports injuries, osteoarthritis), obesity,  
 CC hyper- or hypo-insulinaemia, hearing loss, and coagulation disorders  
 CC (e.g. stroke, heart attack). Anti-PRO antibodies are useful in diagnostic  
 CC assays for PRO, by detecting its expression in specific cells, tissues or  
 CC serum, and for affinity purification of PRO from recombinant cell culture  
 CC or natural sources. ABU8870-ABU81144 represent the human PRO  
 CC polypeptides of the invention. Note: the sequence data for this patent  
 CC was obtained in electronic format directly from the USPTO web site at  
 CC seqdata.uspto.gov/psipdsIDentry.html  
 XX  
 SQ Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 6; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 MATAGGSGADPGSRGLRLGFCVLLAGLCRNSVERKIYIPLNKTAPCVRLNATHQI 60  
 DB 1 MATAGGSGADPGSRGLRLGFCVLLAGLCRNSVERKIYIPLNKTAPCVRLNATHQI 60  
 QY 61 GCQSSISGDTGVIHVVEKEEDLQWVLTGDPNPPYVLLSKHFTDLMEKLGRTSRIAG 120  
 DB 61 GCQSSISGDTGVIHVVEKEEDLQWVLTGDPNPPYVLLSKHFTDLMEKLGRTSRIAG 120  
 QY 121 LAVSLTKPSPAGSPSPVQCPNDGPGVYNSGPEFAHCREIQWNSLGNGLAYEDFSPPI 180  
 DB 121 LAVSLTKPSPAGSPSPVQCPNDGPGVYNSGPEFAHCREIQWNSLGNGLAYEDFSPPI 180  
 QY 181 FILEDENETKVIKQCQYDHNLSNGSAPTFLPCAMOLFSSHMAVISTATCMRRSSIQSTF 240  
 DB 181 FILEDENETKVIKQCQYDHNLSNGSAPTFLPCAMOLFSSHMAVISTATCMRRSSIQSTF 240  
 QY 241 SINPEIVCDPLSDYNVWMSMLKPIINTTGLTKPDORVVVAATRLDSRSFFWVAPGSAVA 300  
 DB 241 SINPEIVCDPLSDYNVWMSMLKPIINTTGLTKPDORVVVAATRLDSRSFFWVAPGSAVA 300  
 QY 301 SVFTQIAAAEALQKAPDVTTLPRNVMFVFFQGETFDYIGSSRMVYDMEKGFVQLENVD 360  
 DB 301 SVFTQIAAAEALQKAPDVTTLPRNVMFVFFQGETFDYIGSSRMVYDMEKGFVQLENVD 360

QY 361 SFVELGQVALRTSLELWMHETDPVSQKNSVRNQVEDLLATLEKSGAGVPAVILRRNQSQ 420  
 DB 361 SFVELGQVALRTSLELWMHETDPVSQKNSVRNQVEDLLATLEKSGAGVPAVILRRNQSQ 420  
 QY 421 PLPPSSLQRFLLARNISGVVLDHSGAFHKKYQSYIDTAENINVSYPWLSPEDLNFFV 480  
 DB 421 PLPPSSLQRFLLARNISGVVLDHSGAFHKKYQSYIDTAENINVSYPWLSPEDLNFFV 480  
 QY 481 TDTAKALADVATVLGALYELAGGTFNFSDTVQADPQTVTRELLYGLFIKANNWFQSIIRQ 540  
 DB 481 TDTAKALADVATVLGALYELAGGTFNFSDTVQADPQTVTRELLYGLFIKANNWFQSIIRQ 540  
 QY 541 DLRSYLGDGFLPHYIAVSSPTNTTYYVQVALANLGTGVVNLTRQQODPSKVPSENKDL 600  
 DB 541 DLRSYLGDGFLPHYIAVSSPTNTTYYVQVALANLGTGVVNLTRQQODPSKVPSENKDL 600  
 QY 601 EYSWVGQPLHNSNETDRLPRCVSTARLARALSPAFELSQWSSTESTWTSRWKDIRARI 660  
 DB 601 EYSWVGQPLHNSNETDRLPRCVSTARLARALSPAFELSQWSSTESTWTSRWKDIRARI 660  
 QY 661 FLIASKELELITLTGVFGILIFSLIVTYCINAKADVLFIAPEPGAVSY 709  
 DB 661 FLIASKELELITLTGVFGILIFSLIVTYCINAKADVLFIAPEPGAVSY 709  
 RESULT 9  
 ABU66670  
 ID ABU66670 standard; protein; 709 AA.  
 XX  
 AC ABU66670;  
 XX  
 DT 23-MAY-2003 (first entry)  
 XX  
 DE Human PRO polypeptide #101.  
 XX  
 KW Human; PRO polypeptide; secreted and transmembrane protein;  
 KW tumour necrosis factor-alpha; TNF-alpha; blood; proliferation;  
 KW differentiation; chondrocyte; tumour; genetic disorder; cytostatic.  
 XX  
 OS Homo sapiens.  
 XX  
 PN US2003036180-A1.  
 XX  
 XX 20-FEB-2003.  
 XX  
 XX 09-MAY-2002; 2002US-00143114.  
 PR 31-MAR-1997; 97WO-US005230.  
 PR 12-JUN-1998; 98WO-US012456.  
 PR 14-JUL-1998; 98WO-US014552.  
 PR 28-AUG-1998; 98WO-US017888.  
 PR 10-SEP-1998; 98WO-US018824.  
 PR 14-SEP-1998; 98WO-US019093.  
 PR 14-SEP-1998; 98WO-US019094.  
 PR 14-SEP-1998; 98WO-US019177.  
 PR 16-SEP-1998; 98WO-US019330.  
 PR 17-SEP-1998; 98WO-US019437.  
 PR 07-OCT-1998; 98WO-US021141.  
 PR 29-OCT-1998; 98WO-US022991.  
 PR 29-OCT-1998; 98WO-US022992.  
 PR 20-NOV-1998; 98WO-US024855.  
 PR 01-DEC-1998; 98WO-US025108.  
 PR 05-JAN-1999; 99WO-US000106.  
 PR 08-MAR-1999; 99WO-US005028.  
 PR 10-MAR-1999; 99WO-US005190.  
 PR 20-APR-1999; 99WO-US008615.  
 PR 14-MAY-1999; 99WO-US010733.  
 PR 02-JUN-1999; 99WO-US012252.  
 PR 01-SEP-1999; 99WO-US020111.  
 PR 08-SEP-1999; 99WO-US020594.  
 PR 13-SEP-1999; 99WO-US020944.  
 PR 15-SEP-1999; 99WO-US021090.  
 PR 15-SEP-1999; 99WO-US021547.

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PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 01-DEC-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 02-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030311.
PR 20-DEC-1999; 99WO-US030399.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 10-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 18-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006566.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854208.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US017935.
PR 21-JUN-2001; 2001US-00908827.
PR 22-JUN-2001; 2001US-00887879.
PR 29-JUN-2001; 2001WO-US020116.
PR 09-JUL-2001; 2001WO-US021066.
PR 18-JUL-2001; 2001WO-US021735.
PR 20-JUN-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX PA (GETH ) GENENTECH INC.
XX PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
XX PI Gerriksen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
XX PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX WPI; 2003-332040/31.
XX DR N-PSDB; ACA03703.
XX PT New secreted and transmembrane PRO nucleic acids, useful for gene
XX PT therapy, in chromosome and gene mapping, as chromosome markers, in tissue
XX PT typing, and in chromosome identification.
XX PS Claim 12; Fig 202; 660pp; English.
XX CC The present invention relates to the isolation of novel human PRO
XX CC polypeptides, and the polynucleotide sequences encoding them. The PRO
XX CC polypeptides are secreted and transmembrane proteins. The PRO
XX CC polypeptides are useful for detecting other PRO polypeptides, for linking
XX CC bioactive molecules to cells expressing PRO polypeptides, for modulating
XX CC biological activities of cells expressing PRO polypeptides, and for
XX CC identifying agonists or antagonists. The PRO polypeptides are useful for
XX CC for stimulating the release of tumour necrosis factor (TNF)-alpha from
XX CC human blood, for stimulating the proliferation or differentiation of
XX CC chondrocytes, and detecting the presence of tumours. The polynucleotide
XX CC sequences encoding PRO polypeptides are useful as hybridisation probes,
XX CC in chromosome and gene mapping, in the generation of antisense RNA and
XX CC DNA, in the preparation of PRO polypeptides, for generating transgenic
XX CC animals or knockout animals, for the genetic analysis of individuals with
XX CC genetic disorders, and in gene therapy. ABU66570-ABU66844 represent the
XX CC human PRO polypeptides of the invention. Note: The sequence data for this
XX CC patent was obtained in electronic format directly from the USPTO web site
XX CC at seqdata.uspto.gov/psipdbidentry.html
XX SQ Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 6; Length 709;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATAGGSGADPGSRGLRLSLFCVLLAGLCRNSVERKIYIPLNKTAPCVRLNATHQI 60
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DB 61 GCQSSISGDTGVTHVVEKEEDLQWVLTGDPNPPYVLLSKHFTRLMEKLGKRTSRIAG 120
QY 121 LAVSLTKPSAGFSVQCPNDGFGVYNSYGPEFAHCREIOWNSLGNGLAYEDEFPI 180
DB 121 LAVSLTKPSAGFSVQCPNDGFGVYNSYGPEFAHCREIOWNSLGNGLAYEDEFPI 180
QY 181 FLEDENETKVIKQCYQDHNLSONGSAPTFPLCAMOLFSSHMAVISTATCMRRSSIQSTF 240
DB 181 FLEDENETKVIKQCYQDHNLSONGSAPTFPLCAMOLFSSHMAVISTATCMRRSSIQSTF 240
QY 241 SINPEIVCDPLSDYNVWSMLKINTTGTCLKPDDRVVVAATRLDSRSFFVNWAPGASAVA 300
DB 241 SINPEIVCDPLSDYNVWSMLKINTTGTCLKPDDRVVVAATRLDSRSFFVNWAPGASAVA 300
QY 301 SFVTQLAAAEALQKAPDVTTTLPRNTVMFVFQGETFDYIGSSRMVYDMEKGPVQLENVD 360
DB 301 SFVTQLAAAEALQKAPDVTTTLPRNTVMFVFQGETFDYIGSSRMVYDMEKGPVQLENVD 360
QY 361 SFVELGQVALRTSLELWMHTDPVSKNNSVRNQVEDLLATLSEKSGAGVPVILRRPNQSQ 420
DB 361 SFVELGQVALRTSLELWMHTDPVSKNNSVRNQVEDLLATLSEKSGAGVPVILRRPNQSQ 420
QY 421 PLPPSSLQFLRARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPWLSPEEDLNFV 480
DB 421 PLPPSSLQFLRARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPWLSPEEDLNFV 480

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QY 481 TDTAKALADVATVILGRALYELAGTGFNSFTVQADPQTIVTLLYGLFIKANNWFQSLRQ 540  
Db 481 TDTAKALADVATVILGRALYELAGTGFNSFTVQADPQTIVTLLYGLFIKANNWFQSLRQ 540  
QY 541 DLRSYLGDPGLQHYIAVSSPTNTTYVQVYALANLTGTVNLTREQCQDPKVPSEKNDLY 600  
Db 541 DLRSYLGDPGLQHYIAVSSPTNTTYVQVYALANLTGTVNLTREQCQDPKVPSEKNDLY 600  
QY 601 EYSWVGPLHSNEDTDLPRCVRTARLARALSPAFELSQMSSTSEYTSWTESRWKDIRARI 660  
Db 601 EYSWVGPLHSNEDTDLPRCVRTARLARALSPAFELSQMSSTSEYTSWTESRWKDIRARI 660  
QY 661 FLIASKELELITLVGGLIFSLIVTYCINAKADVLFIAPREPGAVSY 709  
Db 661 FLIASKELELITLVGGLIFSLIVTYCINAKADVLFIAPREPGAVSY 709

RESULT 10  
ABU59751  
ID ABU59751 standard; protein; 709 AA.  
XX  
AC ABU59751;  
XX  
DT 13-MAY-2003 (first entry)  
XX  
DE Novel secreted and transmembrane protein PRO4317.  
XX  
KW Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing;  
KW cardiac insufficiency disorder; cancer; tumour; immune response;  
KW adrenal cortical capillary endothelial growth; c-fos induction;  
KW vascular endothelial growth factor inhibition; VEGF inhibition;  
KW endothelial cell growth inhibitor; T-lymphocytes stimulation;  
KW retinal neurons cell survival; rod photoreceptor cell survival;  
KW retinal disorder; retinitis pigmentosa; kidney disorder;  
KW mammalian kidney mesangial cell proliferation; Berger disease;  
KW dermatitis; herpeticiformis; Crohn's disease; chondrocyte proliferation;  
KW chondrocyte redifferentiation; sports injury; arthritis.  
XX  
OS Homo sapiens.  
XX  
XX US2003017563-A1.  
XX  
XX 23-JAN-2003.  
XX  
XX 07-MAY-2002; 2002US-00140808.  
XX  
XX 31-MAR-1997; 97WO-US005230.  
XX 12-JUN-1998; 98WO-US012456.  
XX 14-JUL-1998; 98WO-US014552.  
XX 28-AUG-1998; 98WO-US017888.  
XX 10-SEP-1998; 98WO-US019824.  
XX 14-SEP-1998; 98WO-US019094.  
XX 14-SEP-1998; 98WO-US019177.  
XX 16-SEP-1998; 98WO-US019330.  
XX 17-SEP-1998; 98WO-US019437.  
XX 07-OCT-1998; 98WO-US021141.  
XX 29-OCT-1998; 98WO-US022992.  
XX 29-OCT-1998; 98WO-US022992.  
XX 29-OCT-1998; 98WO-US022992.  
XX 01-NOV-1998; 98WO-US024855.  
XX 01-DEC-1998; 98WO-US025108.  
XX 05-JAN-1999; 98WO-US000106.  
XX 08-MAR-1999; 98WO-US005028.  
XX 10-MAR-1999; 98WO-US005190.  
XX 20-APR-1999; 98WO-US008615.  
XX 14-MAY-1999; 98WO-US010733.  
XX 02-JUN-1999; 98WO-US012252.  
XX 01-SEP-1999; 98WO-US020111.  
XX 08-SEP-1999; 98WO-US020594.  
XX 13-SEP-1999; 98WO-US020944.  
XX 15-SEP-1999; 98WO-US021090.  
XX 15-SEP-1999; 98WO-US021547.  
XX 05-OCT-1999; 98WO-US023089.

PR 29-NOV-1999; 99WO-US028214.  
PR 30-NOV-1999; 99WO-US028313.  
PR 30-NOV-1999; 99WO-US028409.  
PR 01-DEC-1999; 99WO-US028301.  
PR 01-DEC-1999; 99WO-US028634.  
PR 02-DEC-1999; 99WO-US028551.  
PR 02-DEC-1999; 99WO-US028564.  
PR 02-DEC-1999; 99WO-US028565.  
PR 16-DEC-1999; 99WO-US030095.  
PR 20-DEC-1999; 99WO-US030911.  
PR 20-DEC-1999; 99WO-US030999.  
PR 22-DEC-1999; 99WO-US030720.  
PR 30-DEC-1999; 99WO-US031243.  
PR 30-DEC-1999; 99WO-US031274.  
PR 05-JAN-2000; 2000WO-US000219.  
PR 06-JAN-2000; 2000WO-US000277.  
PR 06-JAN-2000; 2000WO-US000376.  
PR 11-FEB-2000; 2000WO-US000376.  
PR 18-FEB-2000; 2000WO-US004341.  
PR 18-FEB-2000; 2000WO-US004342.  
PR 22-FEB-2000; 2000WO-US004414.  
PR 24-FEB-2000; 2000WO-US004914.  
PR 24-FEB-2000; 2000WO-US005004.  
PR 01-MAR-2000; 2000WO-US005601.  
PR 02-MAR-2000; 2000WO-US005746.  
PR 02-MAR-2000; 2000WO-US005841.  
PR 10-MAR-2000; 2000WO-US006319.  
PR 15-MAR-2000; 2000WO-US006884.  
PR 20-MAR-2000; 2000WO-US007377.  
PR 21-MAR-2000; 2000WO-US007532.  
PR 30-MAR-2000; 2000WO-US008439.  
PR 17-MAY-2000; 2000WO-US013705.  
PR 22-MAY-2000; 2000WO-US014042.  
PR 30-MAY-2000; 2000WO-US014941.  
PR 28-JUL-2000; 2000WO-US020710.  
PR 11-AUG-2000; 2000WO-US022031.  
PR 23-AUG-2000; 2000WO-US023522.  
PR 24-AUG-2000; 2000WO-US023328.  
PR 08-NOV-2000; 2000WO-US030952.  
PR 10-NOV-2000; 2000WO-US030873.  
PR 01-DEC-2000; 2000WO-US032678.  
PR 20-DEC-2000; 2000US-00747259.  
PR 20-DEC-2000; 2000WO-US034956.  
PR 28-FEB-2001; 2001US-00796498.  
PR 28-FEB-2001; 2001WO-US006520.  
PR 01-MAR-2001; 2001WO-US006666.  
PR 09-MAR-2001; 2001US-00802706.  
PR 14-MAR-2001; 2001US-00808689.  
PR 22-MAR-2001; 2001US-00816744.  
PR 05-APR-2001; 2001US-00828366.  
PR 10-MAY-2001; 2001US-00854208.  
PR 10-MAY-2001; 2001US-00854280.  
PR 18-MAY-2001; 2001US-00860216.  
PR 25-MAY-2001; 2001US-00866028.  
PR 25-MAY-2001; 2001US-00866034.  
PR 25-MAY-2001; 2001WO-US017092.  
PR 01-JUN-2001; 2001US-00872035.  
PR 01-JUN-2001; 2001WO-US017800.  
PR 15-JUN-2001; 2001US-00874503.  
PR 19-JUN-2001; 2001US-00886342.  
PR 20-JUN-2001; 2001WO-US019692.  
PR 21-JUN-2001; 2001US-00887879.  
PR 22-JUN-2001; 2001WO-US020116.  
PR 29-JUN-2001; 2001WO-US021066.  
PR 09-JUL-2001; 2001WO-US021735.  
PR 18-JUL-2001; 2001US-00908827.  
PR 06-AUG-2001; 2001US-00924419.  
PR 09-AUG-2001; 2001US-00927796.  
PR 16-AUG-2001; 2001US-00931836.  
PR 19-DEC-2001; 2001US-00028072.  
XX

(GETH ) GENENTECH INC.

PA Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;  
 PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;  
 PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;  
 DR WPI; 2003-149238/14.  
 DR N-PSDB; ABX89241.  
 XX  
 XX Two hundred and seventy five nucleic acids encoding PRO polypeptides,  
 PT useful for treating pericyte-associated tumors, diabetes and various bone  
 PT and/or cartilage disorders, e.g. arthritis.  
 XX  
 XX Claim 12; Fig 202; 659pp; English.

CC The invention describes an isolated human PRO polypeptide. The PRO  
 CC polypeptides are useful in detecting PRO polypeptides in a sample, in  
 CC linking a bioactive molecule to a cell expressing a PRO polypeptide, and  
 CC in modulating at least one biological activity of a cell expressing a PRO  
 CC polypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus  
 CC useful for treating cardiac insufficiency disorders. PRO1154 and PRO1186  
 CC stimulate adrenal cortical capillary endothelial growth, and PRO536,  
 CC PRO943, PRO828, PRO826, PRO1068 or PRO535, PRO826, PRO819, PRO1126,  
 CC PRO1360 and PRO1387 induce c-fos in endothelial cells, and are thus  
 CC useful for treating conditions or disorders where angiogenesis would be  
 CC beneficial, e.g. wound healing and antagonist of this polypeptide are  
 CC useful for treating cancerous tumors. PRO812 inhibits vascular  
 CC endothelial growth factor (VEGF) stimulated proliferation of endothelial  
 CC cells and is thus useful for inhibiting endothelial cell growth in  
 CC mammals which would be beneficial in inhibiting tumour growth. PRO826,  
 CC PRO1068, PRO1184, PRO1346 and PRO1375 stimulate proliferation of  
 CC stimulated T-lymphocytes and are therapeutically useful for enhancing  
 CC immune response. PRO828, PRO826, PRO1068 or PRO132 enhance survival of  
 CC retinal neurons cells (PRO1132 is also enhance survival/proliferation of  
 CC rod photoreceptor cells) and therefore are useful for treating retinal  
 CC disorders of injuries, e.g. retinitis pigmentosa, AMD. PRO819, PRO813  
 CC and PRO1066 induce proliferation of mammalian kidney mesangial cells,  
 CC and therefore are useful for treating kidney disorders associated with  
 CC decreased mesangial cell function such as Berger disease or other  
 CC nephropathies associated with dermatitis, herpeticiformis or Crohn's  
 CC disease. PRO1310, PRO844, PRO1312, PRO1192 and PRO1387 induce the  
 CC proliferation and/or redifferentiation of chondrocytes in culture and are  
 CC thus useful for treating sports injuries, and arthritis. This is the  
 CC amino acid sequence of a novel human PRO protein

XX SQ Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 6; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATAGGSGADPGSRGLRLLSFCVLLAGLCRGSVERKIYIPLNKTAPCVRLNATHOI 60  
 DB 1 MATAGGSGADPGSRGLRLLSFCVLLAGLCRGSVERKIYIPLNKTAPCVRLNATHOI 60  
 QY 61 GCSSISGDTGVIHVVEKEEDLQWLVTGDPNPPYMWLLSKHFTDLMEXLKGRTSIAG 120  
 DB 61 GCSSISGDTGVIHVVEKEEDLQWLVTGDPNPPYMWLLSKHFTDLMEXLKGRTSIAG 120  
 QY 121 LAVSLTKPSASGFSVQCPNDGFGVYSNGYGFPAHCHREIOWNSLGNGLAYEDFSFPI 180  
 DB 121 LAVSLTKPSASGFSVQCPNDGFGVYSNGYGFPAHCHREIOWNSLGNGLAYEDFSFPI 180  
 QY 181 FLEDENETKVIKCYODHNLSONGSAFTPLCAQOLFPMHHAIVISTATCMRSSIQSTF 240  
 DB 181 FLEDENETKVIKCYODHNLSONGSAFTPLCAQOLFPMHHAIVISTATCMRSSIQSTF 240  
 QY 241 SINPEIVCDPLSDYNVMSMLKPIINTTGLKPDORVVVAATRLDSRSFFNNVAPGAESAVA 300  
 DB 241 SINPEIVCDPLSDYNVMSMLKPIINTTGLKPDORVVVAATRLDSRSFFNNVAPGAESAVA 300  
 QY 301 SFTVQLAAALQKAPDVTTLPRNVMVFVFGQETFDVIGSSRMVYDMEKGFVQLENVD 360

DB 301 SFTVQLAAALQKAPDVTTLPRNVMVFVFGQETFDVIGSSRMVYDMEKGFVQLENVD 360  
 QY 361 SFVELGQVALRTSLLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPAVILRRPNOSQ 420  
 DB 361 SFVELGQVALRTSLLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPAVILRRPNOSQ 420  
 QY 421 PLPSSLQRFELARNISGVVLADHSGAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNFFV 480  
 DB 421 PLPSSLQRFELARNISGVVLADHSGAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNFFV 480  
 QY 481 TDTAKALADVATVIGRALYELAGTNFSDVQADPQVTVRLLYGFLIKANNMFQSLIRQ 540  
 DB 481 TDTAKALADVATVIGRALYELAGTNFSDVQADPQVTVRLLYGFLIKANNMFQSLIRQ 540  
 QY 541 DLRSYLDGDLQHYIAVSSPTNTTYVQYALANLTGTVVNLTRQCDPSKVPSEKNDLY 600  
 DB 541 DLRSYLDGDLQHYIAVSSPTNTTYVQYALANLTGTVVNLTRQCDPSKVPSEKNDLY 600  
 QY 601 EYSWVGQPLHSNETDRLPRCVRSTARLARALSPAFELSQWSSSTSTWTSRWKDIRARI 660  
 DB 601 EYSWVGQPLHSNETDRLPRCVRSTARLARALSPAFELSQWSSSTSTWTSRWKDIRARI 660  
 QY 661 FLIASKELELITLTGFGILIFSLIVTYCINAKADVLFIAPREPGAVSY 709  
 DB 661 FLIASKELELITLTGFGILIFSLIVTYCINAKADVLFIAPREPGAVSY 709  
 RESULT 11  
 ABO24941  
 ID ABO24941 standard; protein; 709 AA.  
 XX AC ABO24941;  
 XX AC ABO24941;  
 DT 05-SEP-2003 (first entry)  
 XX Human secreted/transmembrane protein (PRO) #101.  
 DE Human; PRO; secreted protein; transmembrane protein; tumour; cytostatic;  
 KW gene therapy; tumour necrosis factor-alpha; TNF-alpha; blood;  
 KW proteoglycan; cartilage; cytokine; peripheral blood mononuclear cell;  
 KW PMBC; glucose uptake; FFA; skeletal muscle cell; adipocyte cell;  
 KW chondrocyte cell proliferation; chondrocyte cell differentiation;  
 KW pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;  
 KW endothelial cell; A-peptide; factor VIIA.  
 XX Homo sapiens.  
 OS US2003036179-A1.  
 PN 20-FEB-2003.  
 XX 10-MAY-2002; 2002US-00142431.  
 PF 31-MAR-1997; 97WO-US005230.  
 XX 12-JUN-1998; 98WO-US012456.  
 PR 14-JUL-1998; 98WO-US014552.  
 PR 28-AUG-1998; 98WO-US017888.  
 PR 10-SEP-1998; 98WO-US018824.  
 PR 14-SEP-1998; 98WO-US019093.  
 PR 14-SEP-1998; 98WO-US019177.  
 PR 16-SEP-1998; 98WO-US019330.  
 PR 17-SEP-1998; 98WO-US019437.  
 PR 07-OCT-1998; 98WO-US021141.  
 PR 29-OCT-1998; 98WO-US022991.  
 PR 29-OCT-1998; 98WO-US022992.  
 PR 20-NOV-1998; 98WO-US024855.  
 PR 01-DEC-1998; 98WO-US025108.  
 PR 05-JAN-1999; 99WO-US000106.  
 PR 08-MAR-1999; 99WO-US005028.  
 PR 10-MAR-1999; 99WO-US005190.  
 PR 20-APR-1999; 99WO-US008615.  
 PR 14-MAY-1999; 99WO-US010733.

PR 02-JUN-1999; 99WO-US011252.  
PR 01-SEP-1999; 99WO-US020111.  
PR 08-SEP-1999; 99WO-US020594.  
PR 13-SEP-1999; 99WO-US020944.  
PR 15-SEP-1999; 99WO-US021090.  
PR 15-SEP-1999; 99WO-US021547.  
PR 05-OCT-1999; 99WO-US023089.  
PR 23-NOV-1999; 99WO-US028214.  
PR 30-NOV-1999; 99WO-US028313.  
PR 30-NOV-1999; 99WO-US028409.  
PR 01-DEC-1999; 99WO-US028301.  
PR 01-DEC-1999; 99WO-US028634.  
PR 02-DEC-1999; 99WO-US028551.  
PR 02-DEC-1999; 99WO-US028564.  
PR 16-DEC-1999; 99WO-US028565.  
PR 20-DEC-1999; 99WO-US030911.  
PR 20-DEC-1999; 99WO-US030999.  
PR 22-DEC-1999; 99WO-US030720.  
PR 30-DEC-1999; 99WO-US031243.  
PR 30-DEC-1999; 99WO-US031274.  
PR 05-JAN-2000; 2000WO-US000219.  
PR 06-JAN-2000; 2000WO-US000277.  
PR 06-JAN-2000; 2000WO-US000376.  
PR 11-FEB-2000; 2000WO-US003565.  
PR 18-FEB-2000; 2000WO-US004341.  
PR 18-FEB-2000; 2000WO-US004342.  
PR 22-FEB-2000; 2000WO-US004414.  
PR 24-FEB-2000; 2000WO-US004914.  
PR 24-FEB-2000; 2000WO-US005004.  
PR 01-MAR-2000; 2000WO-US005601.  
PR 02-MAR-2000; 2000WO-US005746.  
PR 02-MAR-2000; 2000WO-US005841.  
PR 10-MAR-2000; 2000WO-US006319.  
PR 15-MAR-2000; 2000WO-US006884.  
PR 20-MAR-2000; 2000WO-US007377.  
PR 21-MAR-2000; 2000WO-US007532.  
PR 30-MAR-2000; 2000WO-US008439.  
PR 17-MAY-2000; 2000WO-US013705.  
PR 22-MAY-2000; 2000WO-US014042.  
PR 30-MAY-2000; 2000WO-US014941.  
PR 02-JUN-2000; 2000WO-US015264.  
PR 28-JUL-2000; 2000WO-US020710.  
PR 11-AUG-2000; 2000WO-US020231.  
PR 23-AUG-2000; 2000WO-US023522.  
PR 24-AUG-2000; 2000WO-US023328.  
PR 08-NOV-2000; 2000WO-US030952.  
PR 10-NOV-2000; 2000WO-US030873.  
PR 01-DEC-2000; 2000WO-US032678.  
PR 20-DEC-2000; 2000US-00747259.  
PR 20-DEC-2000; 2000WO-US034956.  
PR 28-FEB-2001; 2001US-00796498.  
PR 28-FEB-2001; 2001WO-US006520.  
PR 01-MAR-2001; 2001WO-US006666.  
PR 09-MAR-2001; 2001US-00802706.  
PR 14-MAR-2001; 2001US-00808689.  
PR 22-MAR-2001; 2001US-00816744.  
PR 05-APR-2001; 2001US-00828366.  
PR 10-MAY-2001; 2001US-00854208.  
PR 10-MAY-2001; 2001US-00854280.  
PR 18-MAY-2001; 2001US-00860216.  
PR 25-MAY-2001; 2001US-00866028.  
PR 25-MAY-2001; 2001US-00866034.  
PR 25-MAY-2001; 2001WO-US017092.  
PR 01-JUN-2001; 2001US-00872035.  
PR 01-JUN-2001; 2001WO-US017800.  
PR 05-JUN-2001; 2001US-00874503.  
PR 14-JUN-2001; 2001US-00882636.  
PR 19-JUN-2001; 2001US-00886342.  
PR 20-JUN-2001; 2001WO-US019692.  
PR 21-JUN-2001; 2001US-00887879.  
PR 22-JUN-2001; 2001WO-US020116.  
PR 29-JUN-2001; 2001WO-US021066.

XX Sequence 709 AA;  
SQ  
Query Match 100.0%; Score 3687; DB 6; Length 709;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATAGGSGADPGSRGLLRLLSFCVLLAGLGRGNSVERKIYPILNKTA PCVRLLNATHOI 60  
DB 1 MATAGGSGADPGSRGLLRLLSFCVLLAGLGRGNSVERKIYPILNKTA PCVRLLNATHOI 60

QY 61 GCSSISGDTGVHVVEKEEDQLWLTDPNPYYMVLLESKHFTDLMELKLGRTSIAG 120

Db	61	GCSSISGDTGVHVEKEDLQWLDGPNPIMVLLSKHFTRDMEKLGKRTGRIAG	120	PR	14-SEP-1998;	98WO-US019093.
QY	121	LAVSLTKPSPASGFSVQCPNDGFGVYSNSYGPFAHCHREIQWNSLGNGLAYEDFSFPI	180	PR	14-SEP-1998;	98WO-US019094.
Db	121	LAVSLTKPSPASGFSVQCPNDGFGVYSNSYGPFAHCHREIQWNSLGNGLAYEDFSFPI	180	PR	16-SEP-1998;	98WO-US019330.
QY	181	FILEDENETKVIKQCYODHNLSONGSAPTFLCAMQLFSMHAVISTATCMRRESSQSTF	240	PR	17-SEP-1998;	98WO-US019437.
Db	181	FILEDENETKVIKQCYODHNLSONGSAPTFLCAMQLFSMHAVISTATCMRRESSQSTF	240	PR	07-OCT-1998;	98WO-US021141.
QY	241	SINPEIVCDPLSDYNVWSMLKPINTTCTLKPDPRVVAAATRLDSRSFPMVAPGAESA	300	PR	29-OCT-1998;	98WO-US022991.
Db	241	SINPEIVCDPLSDYNVWSMLKPINTTCTLKPDPRVVAAATRLDSRSFPMVAPGAESA	300	PR	29-OCT-1998;	98WO-US022992.
QY	301	SFTVTQAAAALOKAPDVTTLPRNVMVFQGETFDYIGSSRMVYDMEKGFPPVQLENVD	360	PR	20-NOV-1998;	98WO-US024855.
Db	301	SFTVTQAAAALOKAPDVTTLPRNVMVFQGETFDYIGSSRMVYDMEKGFPPVQLENVD	360	PR	01-DEC-1998;	98WO-US025108.
QY	361	SFVELGOVALRTSLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPAVILRRPNQSQ	420	PR	08-MAR-1999;	98WO-US005028.
Db	361	SFVELGOVALRTSLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPAVILRRPNQSQ	420	PR	10-MAR-1999;	98WO-US005190.
QY	421	PLPPSSIQRLRARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFV	480	PR	20-APR-1999;	98WO-US008615.
Db	421	PLPPSSIQRLRARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFV	480	PR	14-MAY-1999;	98WO-US010733.
QY	481	TDTAKALADVATVULGRALYELAGTNSFDTQADPQVTRLLYGLFIKANNWFQSLTRQ	540	PR	02-JUN-1999;	98WO-US012252.
Db	481	TDTAKALADVATVULGRALYELAGTNSFDTQADPQVTRLLYGLFIKANNWFQSLTRQ	540	PR	01-SEP-1999;	98WO-US020111.
QY	541	DLRSYLGDDGFLQHVIAVSSPTNTYVQYALANLTGVVNLTRQCCODPSKVPSENKOLY	600	PR	08-SEP-1999;	98WO-US020594.
Db	541	DLRSYLGDDGFLQHVIAVSSPTNTYVQYALANLTGVVNLTRQCCODPSKVPSENKOLY	600	PR	13-SEP-1999;	98WO-US020944.
QY	601	EYSWVQGLHSNETDRLPRCVSTARLARALSPAFELSONSSTEYSWTESRWKDIRARI	660	PR	15-SEP-1999;	98WO-US021090.
Db	601	EYSWVQGLHSNETDRLPRCVSTARLARALSPAFELSONSSTEYSWTESRWKDIRARI	660	PR	15-SEP-1999;	98WO-US021547.
QY	661	FLIASKLELITLVGFGILIFSLIVTYCINAKADVLFIAPRPPGAVSY	709	PR	05-OCT-1999;	98WO-US023089.
Db	661	FLIASKLELITLVGFGILIFSLIVTYCINAKADVLFIAPRPPGAVSY	709	PR	29-NOV-1999;	98WO-US028214.

RESULT 12

ABU66946

ID ABU66946 standard; protein; 709 AA.

XX AC ABU66946;

XX DT 27-MAY-2003 (first entry)

XX DE Human secreted/transmembrane, PRO, protein SEQ ID 202.

XX KW Human; secreted protein; transmembrane protein; PRO;

XX KW inflammatory disease; organ failure; atherosclerosis; cardiac injury;

XX KW infertility; birth defects; premature aging; AIDS; biosensor;

XX KW acquired immunodeficiency syndrome; cancer; diabetic complication;

XX KW bioreactor; tumour.

XX OS Homo sapiens.

XX PN US2003032155-A1.

XX PD 13-FEB-2003.

XX PF 03-MAY-2002; 2002US-00137865.

XX PR 31-MAR-1997; 97WO-US005230.

XX PR 12-JUN-1998; 98WO-US012456.

XX PR 14-JUL-1998; 98WO-US014552.

XX PR 28-AUG-1998; 98WO-US017888.

XX PR 10-SEP-1998; 98WO-US018824.





XX PD 30-JAN-2003.  
XX PF 16-APR-2002; 2002US-00123304.  
XX PR 31-MAR-1997; 97WO-US005230.  
XX PR 12-JUN-1998; 98WO-US012456.  
XX PR 14-JUL-1998; 98WO-US014552.  
XX PR 28-AUG-1998; 98WO-US017888.  
XX PR 10-SEP-1998; 98WO-US018824.  
XX PR 14-SEP-1998; 98WO-US019093.  
XX PR 14-SEP-1998; 98WO-US019177.  
XX PR 16-SEP-1998; 98WO-US019330.  
XX PR 17-SEP-1998; 98WO-US019437.  
XX PR 07-OCT-1998; 98WO-US021141.  
XX PR 29-OCT-1998; 98WO-US022991.  
XX PR 29-OCT-1998; 98WO-US022992.  
XX PR 01-DEC-1998; 98WO-US024855.  
XX PR 08-MAR-1999; 99WO-US000106.  
XX PR 08-MAR-1999; 99WO-US005028.  
XX PR 10-MAR-1999; 99WO-US005190.  
XX PR 20-APR-1999; 99WO-US008615.  
XX PR 14-MAY-1999; 99WO-US010733.  
XX PR 02-JUN-1999; 99WO-US012252.  
XX PR 01-SEP-1999; 99WO-US020111.  
XX PR 08-SEP-1999; 99WO-US020594.  
XX PR 13-SEP-1999; 99WO-US020944.  
XX PR 15-SEP-1999; 99WO-US021090.  
XX PR 15-SEP-1999; 99WO-US021547.  
XX PR 05-OCT-1999; 99WO-US023089.  
XX PR 29-NOV-1999; 99WO-US028214.  
XX PR 30-NOV-1999; 99WO-US028313.  
XX PR 01-DEC-1999; 99WO-US028409.  
XX PR 01-DEC-1999; 99WO-US028301.  
XX PR 02-DEC-1999; 99WO-US028634.  
XX PR 02-DEC-1999; 99WO-US028551.  
XX PR 02-DEC-1999; 99WO-US028564.  
XX PR 16-DEC-1999; 99WO-US028565.  
XX PR 20-DEC-1999; 99WO-US030095.  
XX PR 20-DEC-1999; 99WO-US030911.  
XX PR 22-DEC-1999; 99WO-US030999.  
XX PR 30-DEC-1999; 99WO-US030720.  
XX PR 30-DEC-1999; 99WO-US031243.  
XX PR 05-JAN-2000; 99WO-US031274.  
XX PR 06-JAN-2000; 2000WO-US000219.  
XX PR 06-JAN-2000; 2000WO-US000277.  
XX PR 11-FEB-2000; 2000WO-US000376.  
XX PR 18-FEB-2000; 2000WO-US0003565.  
XX PR 18-FEB-2000; 2000WO-US000431.  
XX PR 22-FEB-2000; 2000WO-US000432.  
XX PR 24-FEB-2000; 2000WO-US000414.  
XX PR 24-FEB-2000; 2000WO-US0004914.  
XX PR 01-MAR-2000; 2000WO-US005004.  
XX PR 02-MAR-2000; 2000WO-US005601.  
XX PR 02-MAR-2000; 2000WO-US005746.  
XX PR 10-MAR-2000; 2000WO-US005941.  
XX PR 15-MAR-2000; 2000WO-US006319.  
XX PR 20-MAR-2000; 2000WO-US006884.  
XX PR 21-MAR-2000; 2000WO-US007377.  
XX PR 30-MAR-2000; 2000WO-US007532.  
XX PR 17-MAY-2000; 2000WO-US008439.  
XX PR 22-MAY-2000; 2000WO-US013705.  
XX PR 30-MAY-2000; 2000WO-US014042.  
XX PR 02-JUN-2000; 2000WO-US014941.  
XX PR 28-JUL-2000; 2000WO-US015264.  
XX PR 11-AUG-2000; 2000WO-US020710.  
XX PR 23-AUG-2000; 2000WO-US022031.  
XX PR 24-AUG-2000; 2000WO-US023522.  
XX PR 08-NOV-2000; 2000WO-US023328.  
XX PR 10-NOV-2000; 2000WO-US030952.  
XX PR 10-NOV-2000; 2000WO-US030973.

01-DEC-2000; 2000WO-US032678.  
20-DEC-2000; 2000US-00747259.  
20-DEC-2000; 2000WO-US034956.  
28-FEB-2001; 2001US-00796498.  
28-FEB-2001; 2001WO-US006520.  
01-MAR-2001; 2001WO-US006666.  
09-MAR-2001; 2001US-00802706.  
14-MAR-2001; 2001US-00808689.  
22-MAR-2001; 2001US-00816744.  
05-APR-2001; 2001US-00828366.  
10-MAY-2001; 2001US-00854208.  
18-MAY-2001; 2001US-00854280.  
25-MAY-2001; 2001US-00860216.  
25-MAY-2001; 2001US-00866034.  
25-MAY-2001; 2001WO-US017092.  
01-JUN-2001; 2001US-00872035.  
01-JUN-2001; 2001WO-US017800.  
05-JUN-2001; 2001US-00874503.  
14-JUN-2001; 2001US-00882636.  
19-JUN-2001; 2001US-00886342.  
20-JUN-2001; 2001WO-US019692.  
21-JUN-2001; 2001US-00887879.  
22-JUN-2001; 2001WO-US020116.  
29-JUN-2001; 2001WO-US021066.  
03-JUL-2001; 2001WO-US021735.  
18-JUL-2001; 2001US-00908827.  
06-AUG-2001; 2001US-00924419.  
09-AUG-2001; 2001US-00927796.  
16-AUG-2001; 2001US-00931836.  
19-DEC-2001; 2001US-00028072.

(GETH ) GENENTECH INC.  
Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;  
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;  
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;  
WPI; 2003-584997/55.  
N-PSDB; ADA45720.

Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers.

Claim 12; Fig 202; 659pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the release of TNF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the release of proteoglycans from cartilage, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the release of a cytokine from PMVC cells, for inhibiting the binding of a peptide to factor VIIa, for inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonucleotide probes are useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in chromosome and gene mapping, in generation of antisense RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g. detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural

CC sources. (I) and (II) are useful for tissue typing. This is the amino  
 CC acid sequence of a novel human secreted and transmembrane PRO  
 CC polypeptide.  
 XX  
 SQ Sequence 709 AA;  
 Query Match 100.0%; Score 3687; DB 6; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 MATAGGSGADPGSGRLRLLSFCVLLAGLCRNSVERKIYIPLNKTAPCVRLINATHOI 60  
 Db 1 MATAGGSGADPGSGRLRLLSFCVLLAGLCRNSVERKIYIPLNKTAPCVRLINATHOI 60  
 QY 61 GCOSSTISGDTGVTHVVEKEEDLQWLTDGPNPVMULLESKHFTDRLMEKLGKRTSRIAG 120  
 Db 61 GCOSSTISGDTGVTHVVEKEEDLQWLTDGPNPVMULLESKHFTDRLMEKLGKRTSRIAG 120  
 QY 121 LAVSLTKPSPASGFSVQCPNDFGVYSNSYGPFAHCREIQNSILGNGLAYEDFSFPI 180  
 Db 121 LAVSLTKPSPASGFSVQCPNDFGVYSNSYGPFAHCREIQNSILGNGLAYEDFSFPI 180  
 QY 181 FLEEDENETKVIKQCYQDHNLQNGSAPTFPLCAMQLFSHMAVISTATCMRESSIQSTF 240  
 Db 181 FLEEDENETKVIKQCYQDHNLQNGSAPTFPLCAMQLFSHMAVISTATCMRESSIQSTF 240  
 QY 241 SINFEIVCDPLSDYNWMSMLKPINTTGLKPDPRVVVATRLDSRSFFNNVAPGASAVA 300  
 Db 241 SINFEIVCDPLSDYNWMSMLKPINTTGLKPDPRVVVATRLDSRSFFNNVAPGASAVA 300  
 QY 301 SFTVQLAAEAALQKAPDVTTLPRNVMFVRFQGTEDYIGSSRMVYDMEKGFVQLENVD 360  
 Db 301 SFTVQLAAEAALQKAPDVTTLPRNVMFVRFQGTEDYIGSSRMVYDMEKGFVQLENVD 360  
 QY 361 SFVELGQVALRTSLELWMHTDPVSQKNESVRNQVEDLLATLEKSGAGVPAVILRRNQSQ 420  
 Db 361 SFVELGQVALRTSLELWMHTDPVSQKNESVRNQVEDLLATLEKSGAGVPAVILRRNQSQ 420  
 QY 421 PLPPSSLQFLRARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFW 480  
 Db 421 PLPPSSLQFLRARNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFW 480  
 QY 481 TOTAKALADVATVLGRALVELAGTDFSTVQADPQTVTRLLYGLLIKANNWFQSIILRQ 540  
 Db 481 TOTAKALADVATVLGRALVELAGTDFSTVQADPQTVTRLLYGLLIKANNWFQSIILRQ 540  
 QY 541 DLRSYLGDPQLQHYIAVSSFTNTTYVQVALANLTGVVNLTRFQCDPSKVPSEKNDLY 600  
 Db 541 DLRSYLGDPQLQHYIAVSSFTNTTYVQVALANLTGVVNLTRFQCDPSKVPSEKNDLY 600  
 QY 601 EYSWVGPLHNETDRLPCVRSSTABALRALSPAFELSQWSSTESTYTSWTSRWDIRARI 660  
 Db 601 EYSWVGPLHNETDRLPCVRSSTABALRALSPAFELSQWSSTESTYTSWTSRWDIRARI 660  
 QY 661 FLIASKELILITVGFGLIFSLIVTYCINAKADVLFIAPIREPAGVSY 709  
 Db 661 FLIASKELILITVGFGLIFSLIVTYCINAKADVLFIAPIREPAGVSY 709

RESULT 14  
 ADA76152  
 ID ADA76152 standard; protein; 709 AA.  
 XX  
 AC ADA76152;  
 XX  
 DT 20-NOV-2003 (first entry)  
 XX  
 DE Human PRO polypeptide #101.  
 XX  
 KW Human; PRO; secreted polypeptide; transmembrane polypeptide;  
 KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;  
 KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;  
 KW liver; microvascular endothelial cell; glucose; FFA;

KW skeletal muscle cell; adipocyte cell; pericyte cell;  
 KW inner ear utricular supporting cell; T-lymphocyte cell;  
 KW endothelial cell tube formation; bone disorder; cartilage disorder;  
 KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;  
 KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;  
 KW immune system cell infiltration.  
 XX Homo sapiens.  
 OS US2003073212-AL.  
 PN 17-APR-2003.  
 XX  
 PD 16-APR-2002; 2002US-00123903.  
 XX 31-MAR-1997; 97WO-US005230.  
 PR 12-JUN-1998; 98WO-US012456.  
 PR 14-JUL-1998; 98WO-US014552.  
 PR 28-AUG-1998; 98WO-US017888.  
 PR 10-SEP-1998; 98WO-US018824.  
 PR 14-SEP-1998; 98WO-US019093.  
 PR 14-SEP-1998; 98WO-US019177.  
 PR 16-SEP-1998; 98WO-US019330.  
 PR 17-SEP-1998; 98WO-US019437.  
 PR 07-OCT-1998; 98WO-US021141.  
 PR 29-OCT-1998; 98WO-US022991.  
 PR 29-OCT-1998; 98WO-US022992.  
 PR 20-NOV-1998; 98WO-US024855.  
 PR 01-DEC-1998; 98WO-US025108.  
 PR 05-JAN-1999; 99WO-US000106.  
 PR 08-MAR-1999; 99WO-US005028.  
 PR 10-MAR-1999; 99WO-US005190.  
 PR 20-APR-1999; 99WO-US008615.  
 PR 14-MAY-1999; 99WO-US010733.  
 PR 02-JUN-1999; 99WO-US012252.  
 PR 01-SEP-1999; 99WO-US020111.  
 PR 08-SEP-1999; 99WO-US020594.  
 PR 13-SEP-1999; 99WO-US020944.  
 PR 15-SEP-1999; 99WO-US021547.  
 PR 05-OCT-1999; 99WO-US023089.  
 PR 29-NOV-1999; 99WO-US028214.  
 PR 30-NOV-1999; 99WO-US028313.  
 PR 01-DEC-1999; 99WO-US028301.  
 PR 01-DEC-1999; 99WO-US028634.  
 PR 02-DEC-1999; 99WO-US028551.  
 PR 02-DEC-1999; 99WO-US028564.  
 PR 02-DEC-1999; 99WO-US028565.  
 PR 16-DEC-1999; 99WO-US030095.  
 PR 20-DEC-1999; 99WO-US030911.  
 PR 20-DEC-1999; 99WO-US030999.  
 PR 22-DEC-1999; 99WO-US030720.  
 PR 30-DEC-1999; 99WO-US031243.  
 PR 30-DEC-1999; 99WO-US031274.  
 PR 05-JAN-2000; 2000WO-US000219.  
 PR 06-JAN-2000; 2000WO-US000277.  
 PR 11-FEB-2000; 2000WO-US000376.  
 PR 18-FEB-2000; 2000WO-US003565.  
 PR 18-FEB-2000; 2000WO-US004341.  
 PR 22-FEB-2000; 2000WO-US004342.  
 PR 24-FEB-2000; 2000WO-US004914.  
 PR 24-FEB-2000; 2000WO-US005004.  
 PR 01-MAR-2000; 2000WO-US005601.  
 PR 02-MAR-2000; 2000WO-US005746.  
 PR 02-MAR-2000; 2000WO-US005841.  
 PR 10-MAR-2000; 2000WO-US006319.  
 PR 15-MAR-2000; 2000WO-US006884.  
 PR 20-MAR-2000; 2000WO-US007377.  
 PR 21-MAR-2000; 2000WO-US007532.  
 PR 30-MAR-2000; 2000WO-US008439.

17-MAY-2000; 2000WO-US013705.  
 22-MAY-2000; 2000WO-US014042.  
 30-MAY-2000; 2000WO-US014941.  
 02-JUN-2000; 2000WO-US015264.  
 28-JUL-2000; 2000WO-US020710.  
 11-AUG-2000; 2000WO-US022031.  
 23-AUG-2000; 2000WO-US023522.  
 24-AUG-2000; 2000WO-US023328.  
 08-NOV-2000; 2000WO-US030952.  
 10-NOV-2000; 2000WO-US030873.  
 01-DEC-2000; 2000WO-US032678.  
 20-DEC-2000; 2000US-00747259.  
 20-DEC-2000; 2000WO-US034956.  
 28-FEB-2001; 2001US-00796498.  
 28-FEB-2001; 2001WO-US006520.  
 01-MAR-2001; 2001WO-US006666.  
 09-MAR-2001; 2001US-00802706.  
 14-MAR-2001; 2001US-00808689.  
 22-MAR-2001; 2001US-00816744.  
 05-APR-2001; 2001US-00828366.  
 10-MAY-2001; 2001US-00854208.  
 10-MAY-2001; 2001US-00854280.  
 18-MAY-2001; 2001US-00860216.  
 25-MAY-2001; 2001US-00866028.  
 25-MAY-2001; 2001US-00866034.  
 25-MAY-2001; 2001WO-US017092.  
 01-JUN-2001; 2001US-00872035.  
 01-JUN-2001; 2001WO-US017800.  
 05-JUN-2001; 2001US-00874503.  
 14-JUN-2001; 2001US-00882636.  
 19-JUN-2001; 2001US-00886342.  
 20-JUN-2001; 2001WO-US019692.  
 21-JUN-2001; 2001US-00887879.  
 22-JUN-2001; 2001WO-US020116.  
 29-JUN-2001; 2001WO-US021066.  
 09-JUL-2001; 2001WO-US021735.  
 18-JUL-2001; 2001US-00908827.  
 06-AUG-2001; 2001US-00924419.  
 09-AUG-2001; 2001US-00927796.  
 16-AUG-2001; 2001US-00931836.  
 19-DEC-2001; 2001US-00028072.  
 (GETH ) GENENTECH INC.  
 Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;  
 Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;  
 Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;  
 WPI; 2003-687639/65.  
 N-PSDB; ADA76151.  
 New isolated nucleic acid encoding a secreted and transmembrane  
 polypeptide, designated e.g. PRO114 or PRO4978, useful in chromosome and  
 gene mapping, in generating antisense RNA and DNA, and in gene therapy.  
 Claim 12; Fig 202; 659pp; English.  
 The invention relates to isolated human PRO polypeptides (secreted and  
 transmembrane polypeptides) and the polynucleotides encoding them. The  
 invention also relates to an antibody which specifically binds to a PRO  
 polypeptide, a method for stimulating the release of tumour necrosis  
 factor-alpha (TNF-alpha) from human blood, a method for stimulating the  
 proliferation or differentiation of chondrocyte cells and a method for  
 detecting the presence of a tumour in a mammal (e.g. adrenal, lung,  
 colon, breast, prostate, rectal, kidney, cervical and liver tumours). The  
 polynucleotides are useful in molecular biology, including uses as  
 hybridisation probes, in chromosome and gene mapping, in generating  
 antisense RNA and DNA and in gene therapy. The polynucleotides may also  
 be used in preparing PRO polypeptides by recombinant techniques and in  
 generating either transgenic animals or knock-out animals which are  
 useful in the development and screening of therapeutically useful  
 reagents. The PRO polypeptides or antibodies are used in preparing a  
 medicament for treating a condition responsive to the polypeptides or

antibodies, such as tumours, for stimulating and inhibiting proliferation  
 of human microvascular endothelial cells, for modulating the uptake of  
 glucose or FFA by skeletal muscle cells or adipocyte cells, for  
 stimulating differentiation of adipocyte cells, for stimulating  
 proliferation of or gene expression in pericyte cells, for stimulating  
 the proliferation of inner ear utricular supporting cells and for treating  
 cells, for inducing endothelial cell tube formation and for treating  
 various bone and/or cartilage disorders such as sports injuries and  
 arthritis. PRO polypeptides which stimulate the release of proteoglycans  
 from cartilage are useful for treating sports-related joint problems,  
 articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO  
 polypeptides are also useful for treating various mammalian haemoglobin-  
 associated disorders such as various thalassemias and conditions which  
 may benefit from enhanced local immune system cell infiltration. This  
 sequence represents a human PRO polypeptide of the invention. Note: The  
 sequence data for this patent is also available in electronic format from  
 CC USPTO at [seqdata.uspto.gov/sequence.html](http://seqdata.uspto.gov/sequence.html).  
 XX  
 SQ Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 6; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 MATAGGGGADPGSRGLRLLSFCVLLAGLCRGNVSVERKIYIPLNKTAFCVRLLNATHQI 60  
 Db 1 MATAGGGGADPGSRGLRLLSFCVLLAGLCRGNVSVERKIYIPLNKTAFCVRLLNATHQI 60  
 Qy 61 GCSSISGDTGVHIVVEKEEDLQWLTGDPNPPVWLLESKHFTDLMELKGTSTIAG 120  
 Db 61 GCSSISGDTGVHIVVEKEEDLQWLTGDPNPPVWLLESKHFTDLMELKGTSTIAG 120  
 Qy 121 LAVSLTKPSASGFSVQCPNDGFGVYSNGYGEFAHCREIQNSLGNLAVEDFSFPI 180  
 Db 121 LAVSLTKPSASGFSVQCPNDGFGVYSNGYGEFAHCREIQNSLGNLAVEDFSFPI 180  
 Qy 181 FLLEDENETKVIKQCYODHNLSONGSAPTPPLCAMQLFSHMAVISTATCRRSSIOTF 240  
 Db 181 FLLEDENETKVIKQCYODHNLSONGSAPTPPLCAMQLFSHMAVISTATCRRSSIOTF 240  
 Qy 241 SINPEIVCDPLSDYNVWSMLKPINTTGLKPDPRVVVAATRLDSRSPFNVAPGASAVA 300  
 Db 241 SINPEIVCDPLSDYNVWSMLKPINTTGLKPDPRVVVAATRLDSRSPFNVAPGASAVA 300  
 Qy 301 SFVTQAAAALQKAPDVTTLPRNVMPVFQGTTFDYGSSRMVYDMEKGFVQLENVD 360  
 Db 301 SFVTQAAAALQKAPDVTTLPRNVMPVFQGTTFDYGSSRMVYDMEKGFVQLENVD 360  
 Qy 361 SFVELGOVALRTSLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPAVILRRPNQSQ 420  
 Db 361 SFVELGOVALRTSLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPAVILRRPNQSQ 420  
 Qy 421 PLPSSILQRFRLARNISGVVLADHSGAFHNKYYQSYDITAENINVSYPWLSPEEDLNFV 480  
 Db 421 PLPSSILQRFRLARNISGVVLADHSGAFHNKYYQSYDITAENINVSYPWLSPEEDLNFV 480  
 Qy 481 TDTAKALADVATVGLRALYELAGTTFSDTVQADPOTVTRLLYGLFKANNWFQSLIRQ 540  
 Db 481 TDTAKALADVATVGLRALYELAGTTFSDTVQADPOTVTRLLYGLFKANNWFQSLIRQ 540  
 Qy 541 DLRSYLGDPLOHVIIVSSPTNTTYVQVALANLTCTVNLTRFEOCDPSKYPSEKNDLY 600  
 Db 541 DLRSYLGDPLOHVIIVSSPTNTTYVQVALANLTCTVNLTRFEOCDPSKYPSEKNDLY 600  
 Qy 601 EYSWVGGLHSNETDRLPCVRSTARLARALSPAFELSQMSSTESTYTSWRKDIRARI 660  
 Db 601 EYSWVGGLHSNETDRLPCVRSTARLARALSPAFELSQMSSTESTYTSWRKDIRARI 660  
 Qy 661 FLIASKELELITLTGVGILIFSLIVTYCINAKADVLFIAPREPQAVSY 709  
 Db 661 FLIASKELELITLTGVGILIFSLIVTYCINAKADVLFIAPREPQAVSY 709

## RESULT 15

ADA18802  
ID ADA18802 standard; protein; 709 AA.

XX  
AC ADA18802;

XX  
DT 20-NOV-2003 (first entry)

XX  
DE Human PRO polypeptide #101.

XX  
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;  
KW tumour necrosis factor-alpha; TNF-alpha; blood; chondrocyte cell; lung;  
KW colon; breast; prostate; rectum; cervix; liver; tumour; cancer;  
KW glucose uptake; FFA; adipocyte cell; pericyte cell; proteoglycan;  
KW cartilage; inner ear utricular supporting cell; cytokine; A-peptide;  
KW factor VIIA; endothelial cell.

XX  
OS Homo sapiens.

XX  
PN US2003054517-A1.

XX  
PD 20-MAR-2003.

XX  
PF 08-MAY-2002; 2002US-00141755.

XX  
PR 31-MAR-1997; 97WO-US005230.

PR 12-JUN-1998; 98WO-US012456.

PR 14-JUL-1998; 98WO-US014552.

PR 28-AUG-1998; 98WO-US017888.

PR 10-SEP-1998; 98WO-US018824.

PR 14-SEP-1998; 98WO-US019093.

PR 14-SEP-1998; 98WO-US019094.

PR 14-SEP-1998; 98WO-US019177.

PR 16-SEP-1998; 98WO-US019330.

PR 17-SEP-1998; 98WO-US019437.

PR 07-OCT-1998; 98WO-US021141.

PR 29-OCT-1998; 98WO-US022991.

PR 29-OCT-1998; 98WO-US022992.

PR 20-NOV-1998; 98WO-US024855.

PR 01-DEC-1998; 98WO-US025108.

PR 05-JAN-1999; 98WO-US000106.

PR 08-MAR-1999; 98WO-US005028.

PR 10-MAR-1999; 98WO-US005190.

PR 20-APR-1999; 98WO-US008615.

PR 14-MAY-1999; 98WO-US010733.

PR 02-JUN-1999; 98WO-US012252.

PR 01-SEP-1999; 98WO-US020111.

PR 08-SEP-1999; 98WO-US020594.

PR 13-SEP-1999; 98WO-US020944.

PR 15-SEP-1999; 98WO-US021090.

PR 15-SEP-1999; 98WO-US021547.

PR 05-OCT-1999; 98WO-US023089.

PR 29-NOV-1999; 98WO-US028214.

PR 30-NOV-1999; 98WO-US028313.

PR 30-NOV-1999; 98WO-US028409.

PR 01-DEC-1999; 98WO-US028301.

PR 01-DEC-1999; 98WO-US028634.

PR 02-DEC-1999; 98WO-US028551.

PR 02-DEC-1999; 98WO-US028564.

PR 02-DEC-1999; 98WO-US028565.

PR 16-DEC-1999; 98WO-US030095.

PR 20-DEC-1999; 98WO-US030911.

PR 20-DEC-1999; 98WO-US030999.

PR 22-DEC-1999; 98WO-US030720.

PR 30-DEC-1999; 98WO-US031243.

PR 30-DEC-1999; 98WO-US031274.

PR 05-JAN-2000; 2000WO-US000219.

PR 06-JAN-2000; 2000WO-US000277.

PR 06-JAN-2000; 2000WO-US000376.

PR 11-FEB-2000; 2000WO-US003565.

PR 18-FEB-2000; 2000WO-US004341.

PR 18-FEB-2000; 2000WO-US004342.

PR 22-FEB-2000; 2000WO-US004414.

PR 24-FEB-2000; 2000WO-US004914.  
PR 24-FEB-2000; 2000WO-US005004.  
PR 01-MAR-2000; 2000WO-US005601.  
PR 02-MAR-2000; 2000WO-US005746.  
PR 02-MAR-2000; 2000WO-US005841.  
PR 10-MAR-2000; 2000WO-US006319.  
PR 15-MAR-2000; 2000WO-US006884.  
PR 20-MAR-2000; 2000WO-US007377.  
PR 21-MAR-2000; 2000WO-US007532.  
PR 30-MAR-2000; 2000WO-US008439.  
PR 17-MAY-2000; 2000WO-US013705.  
PR 22-MAY-2000; 2000WO-US014042.  
PR 30-MAY-2000; 2000WO-US014941.  
PR 02-JUN-2000; 2000WO-US015264.  
PR 28-JUL-2000; 2000WO-US020710.  
PR 11-AUG-2000; 2000WO-US022031.  
PR 23-AUG-2000; 2000WO-US023522.  
PR 24-AUG-2000; 2000WO-US023328.  
PR 08-NOV-2000; 2000WO-US030952.  
PR 10-NOV-2000; 2000WO-US030873.  
PR 01-DEC-2000; 2000WO-US032678.  
PR 20-DEC-2000; 2000US-00747259.  
PR 20-DEC-2000; 2000WO-US034956.  
PR 28-FEB-2001; 2001US-00796498.  
PR 28-FEB-2001; 2001US-00816744.  
PR 22-MAR-2001; 2001US-00828366.  
PR 05-APR-2001; 2001US-00828366.  
PR 10-MAY-2001; 2001US-00854208.  
PR 10-MAY-2001; 2001US-00854280.  
PR 18-MAY-2001; 2001US-00860216.  
PR 25-MAY-2001; 2001US-00866028.  
PR 25-MAY-2001; 2001US-00866034.  
PR 25-MAY-2001; 2001WO-US017092.  
PR 01-JUN-2001; 2001US-00872035.  
PR 01-JUN-2001; 2001WO-US017800.  
PR 05-JUN-2001; 2001US-00874503.  
PR 14-JUN-2001; 2001US-00882636.  
PR 19-JUN-2001; 2001US-00886342.  
PR 20-JUN-2001; 2001WO-US019692.  
PR 21-JUN-2001; 2001US-00887879.  
PR 22-JUN-2001; 2001WO-US020116.  
PR 23-JUN-2001; 2001WO-US021066.  
PR 09-JUL-2001; 2001WO-US021735.  
PR 18-JUL-2001; 2001US-00908827.  
PR 06-AUG-2001; 2001US-00924419.  
PR 09-AUG-2001; 2001US-00927796.  
PR 16-AUG-2001; 2001US-00931836.  
PR 19-DEC-2001; 2001US-00028072.

(GETH ) GENENTECH INC.

Baker KP, Beresini M, DeForge L, Desnoyers L, Filvaroff E, Gao W;  
Gerlitsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;  
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-521854/49.  
N-PSDB; ADA18801.

New PRO nucleic acid, useful for preparing a composition for treating  
e.g., tumors.

Claim 12; Fig 202; 660pp; English.

The invention relates to isolated human PRO polypeptides (secreted and  
transmembrane polypeptides) and the polynucleotides encoding them. The  
invention also relates to an antibody which specifically binds to a PRO  
polypeptide, a method for stimulating the release of tumour necrosis  
factor-alpha (TNF-alpha) from human blood, a method for stimulating the  
proliferation or differentiation of chondrocyte cells and a method for  
detecting the presence of a tumour in a mammal (e.g. lung, colon, breast,

CC prostate, rectal, cervical and liver tumors). The polynucleotides are  
 CC useful in molecular biology, including uses as hybridisation probes, in  
 CC chromosome and gene mapping, in generating antisense RNA and DNA and in  
 CC gene therapy. The polynucleotides may also be used in preparing PRO  
 CC polypeptides by recombinant techniques and in generating either  
 CC transgenic animals or knock-out animals which are useful in the  
 CC development and screening of therapeutically useful reagents. The PRO  
 CC polypeptides or antibodies are used in preparing a medicament for  
 CC treating a condition responsive to the polypeptides or antibodies, such  
 CC as tumours, for modulating the uptake of glucose or FFA by adipocyte  
 CC cells, for stimulating the proliferation of or gene expression in  
 CC pericyte cells, for stimulating the release of proteoglycans from  
 CC cartilage, for stimulating the proliferation of inner ear utricular  
 CC supporting cells, for stimulating the release of cytokines from PBMC  
 CC cells, for inhibiting the binding of A-peptide to factor VIIA, for  
 CC inhibiting the differentiation of adipocyte cells and for stimulating the  
 CC proliferation of endothelial cells. This sequence represents a human PRO  
 CC polypeptide of the invention. Note: The sequence data for this patent is  
 CC also available in electronic format from USPTO at  
 CC seqdata.uspto.gov/sequence.html.  
 XX  
 SQ Sequence 709 AA;

Query Match 100.0%; Score 3687; DB 6; Length 709;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 709; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MATAGGGGADPGSRGLRLLSFCVLLAGLCRGNSVERKIYIPLNKTAFCVRLLNATHQI	60
Db	1	MATAGGGGADPGSRGLRLLSFCVLLAGLCRGNSVERKIYIPLNKTAFCVRLLNATHQI	60
QY	61	GCQSSISGDTGVIHWKEEDLQWLTGDPNPPYVWLLSKHFTKTRDLMKLGKTSRIAG	120
Db	61	GCQSSISGDTGVIHWKEEDLQWLTGDPNPPYVWLLSKHFTKTRDLMKLGKTSRIAG	120
QY	121	LAVSLTKPSPASGSPSPQCPNDGFGVYSNSYGPFAHCREIQWNSLGNGLAYEDFSFPI	180
Db	121	LAVSLTKPSPASGSPSPQCPNDGFGVYSNSYGPFAHCREIQWNSLGNGLAYEDFSFPI	180
QY	181	FLLEDENETKVIKOCYODHNLSONGSAPTPLCAMQLFSHMHAVISTATCMRRSSIQSTF	240
Db	181	FLLEDENETKVIKOCYODHNLSONGSAPTPLCAMQLFSHMHAVISTATCMRRSSIQSTF	240
QY	241	SINPEIVCDPLSDYNVMSMLKPIINTTGLKPDORVVVAATRLDSRSPFNVPAGAESAVA	300
Db	241	SINPEIVCDPLSDYNVMSMLKPIINTTGLKPDORVVVAATRLDSRSPFNVPAGAESAVA	300
QY	301	SFVTQLAAALOKAPDVTTLPRNMFVFFQGETFDYIGSSRMVYDMKGFPPVQLENVD	360
Db	301	SFVTQLAAALOKAPDVTTLPRNMFVFFQGETFDYIGSSRMVYDMKGFPPVQLENVD	360
QY	361	SFVELGQVALRTSLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPVILRRNOSQ	420
Db	361	SFVELGQVALRTSLELWMHTDPVSQKNESVRNOVEDLLATLEKSGAGVPVILRRNOSQ	420
QY	421	PLPPSSIQREFLRARNISGVVLADHSGAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNfV	480
Db	421	PLPPSSIQREFLRARNISGVVLADHSGAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNfV	480
QY	481	TDTAKALADYATVILGRALYELAGTNSDVTQADPQTVTRLLYGFLIKANNSWFQSIIRQ	540
Db	481	TDTAKALADYATVILGRALYELAGTNSDVTQADPQTVTRLLYGFLIKANNSWFQSIIRQ	540
QY	541	DLRSYLGDPLOHYIAVSSPTNTTYVQYALANITGVVNLTRQCQODPSKVPSENKOLY	600
Db	541	DLRSYLGDPLOHYIAVSSPTNTTYVQYALANITGVVNLTRQCQODPSKVPSENKOLY	600
QY	601	EYSWVGFLHSNETDRLPRCVRSTARLARALSPAFELSQSSSTEYSWTESRWKDIRARI	660
Db	601	EYSWVGFLHSNETDRLPRCVRSTARLARALSPAFELSQSSSTEYSWTESRWKDIRARI	660
QY	661	FLIASKELELITLVGFGILIFSILVITYCINAKADVLFIAPRPGAVSY 709	

Db 661 FLIASKELELITLVGFGILIFSILVITYCINAKADVLFIAPRPGAVSY 709

Search completed: March 18, 2004, 12:02:52  
 Job time : 57.0335 secs

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: March 18, 2004, 12:05:19 ; Search time 38.1161 Seconds  
(without alignments)  
4721.731 Million cell updates/sec

Title: US-09-945-258-18  
Perfect score: 3675  
Sequence: 1 MEMRLNAAIWLILSYGAT.....SSRSEVLFEDLPASNAALFG 695

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1049977 seqs, 258955339 residues

Total number of hits satisfying chosen parameters: 1049977

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA:\*

- 1: /cgn2\_6/ptodata/2/pubpaa/US07\_PUBCOMB.pep.\*
- 2: /cgn2\_6/ptodata/2/pubpaa/PCT\_NEW\_PUB.pep.\*
- 3: /cgn2\_6/ptodata/2/pubpaa/US06\_NEW\_PUB.pep.\*
- 4: /cgn2\_6/ptodata/2/pubpaa/US06\_PUBCOMB.pep.\*
- 5: /cgn2\_6/ptodata/2/pubpaa/US07\_NEW\_PUB.pep.\*
- 6: /cgn2\_6/ptodata/2/pubpaa/PCTUS\_PUBCOMB.pep.\*
- 7: /cgn2\_6/ptodata/2/pubpaa/US08\_NEW\_PUB.pep.\*
- 8: /cgn2\_6/ptodata/2/pubpaa/US08\_PUBCOMB.pep.\*
- 9: /cgn2\_6/ptodata/2/pubpaa/US09\_PUBCOMB.pep.\*
- 10: /cgn2\_6/ptodata/2/pubpaa/US09\_PUBCOMB.pep.\*
- 11: /cgn2\_6/ptodata/2/pubpaa/US09\_PUBCOMB.pep.\*
- 12: /cgn2\_6/ptodata/2/pubpaa/US09\_NEW\_PUB.pep.\*
- 13: /cgn2\_6/ptodata/2/pubpaa/US10\_PUBCOMB.pep.\*
- 14: /cgn2\_6/ptodata/2/pubpaa/US10\_PUBCOMB.pep.\*
- 15: /cgn2\_6/ptodata/2/pubpaa/US10\_PUBCOMB.pep.\*
- 16: /cgn2\_6/ptodata/2/pubpaa/US10\_NEW\_PUB.pep.\*
- 17: /cgn2\_6/ptodata/2/pubpaa/US60\_NEW\_PUB.pep.\*
- 18: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	% Match	Length	ID	Description
1	3675	100.0	695	US-09-945-258-18	Sequence 18, Appl
2	787.5	21.4	708	US-09-945-258-16	Sequence 16, Appl
3	787	21.4	690	US-09-909-567B-45	Sequence 45, Appl
4	786.5	21.4	709	US-09-945-258-14	Sequence 14, Appl
5	786.5	21.4	709	US-10-147-493-202	Sequence 202, Appl
6	786.5	21.4	709	US-10-145-127-202	Sequence 202, Appl
7	786.5	21.4	709	US-10-160-503-202	Sequence 202, Appl
8	786.5	21.4	709	US-10-143-118-202	Sequence 202, Appl
9	786.5	21.4	709	US-10-144-993-202	Sequence 202, Appl
10	786.5	21.4	709	US-10-158-787-202	Sequence 202, Appl
11	786.5	21.4	709	US-10-028-072-202	Sequence 202, Appl
12	786.5	21.4	709	US-10-121-049-202	Sequence 202, Appl
13	786.5	21.4	709	US-10-123-904-202	Sequence 202, Appl
14	786.5	21.4	709	US-10-140-470-202	Sequence 202, Appl
15	786.5	21.4	709	US-10-175-746-202	Sequence 202, Appl

16	786.5	21.4	709	14	US-10-176-918-202	Sequence 202, App
17	786.5	21.4	709	14	US-10-176-921-202	Sequence 202, App
18	786.5	21.4	709	14	US-10-137-865-202	Sequence 202, App
19	786.5	21.4	709	14	US-10-140-474-202	Sequence 202, App
20	786.5	21.4	709	14	US-10-143-431-202	Sequence 202, App
21	786.5	21.4	709	14	US-10-143-114-202	Sequence 202, App
22	786.5	21.4	709	14	US-10-140-002-202	Sequence 202, App
23	786.5	21.4	709	14	US-10-142-419-202	Sequence 202, App
24	786.5	21.4	709	14	US-10-123-262-202	Sequence 202, App
25	786.5	21.4	709	14	US-10-142-423-202	Sequence 202, App
26	786.5	21.4	709	14	US-10-121-050-202	Sequence 202, App
27	786.5	21.4	709	14	US-10-141-755-202	Sequence 202, App
28	786.5	21.4	709	14	US-10-143-032-202	Sequence 202, App
29	786.5	21.4	709	14	US-10-123-108-202	Sequence 202, App
30	786.5	21.4	709	14	US-10-123-236-202	Sequence 202, App
31	786.5	21.4	709	14	US-10-123-261-202	Sequence 202, App
32	786.5	21.4	709	14	US-10-140-921-202	Sequence 202, App
33	786.5	21.4	709	14	US-10-140-928-202	Sequence 202, App
34	786.5	21.4	709	14	US-10-121-045-202	Sequence 202, App
35	786.5	21.4	709	14	US-10-123-292-202	Sequence 202, App
36	786.5	21.4	709	14	US-10-123-903-202	Sequence 202, App
37	786.5	21.4	709	14	US-10-124-819-202	Sequence 202, App
38	786.5	21.4	709	14	US-10-124-822-202	Sequence 202, App
39	786.5	21.4	709	14	US-10-140-925-202	Sequence 202, App
40	786.5	21.4	709	14	US-10-160-438-202	Sequence 202, App
41	786.5	21.4	709	14	US-10-124-824-202	Sequence 202, App
42	786.5	21.4	709	14	US-10-127-825A-202	Sequence 202, App
43	786.5	21.4	709	14	US-10-127-829A-202	Sequence 202, App
44	786.5	21.4	709	14	US-10-127-835A-202	Sequence 202, App
45	786.5	21.4	709	14	US-10-127-839A-202	Sequence 202, App

## ALIGNMENTS

RESULT 1  
US-09-945-258-18  
; Sequence 18, Application US/09945258  
; Patent No. US20020058276A1  
; GENERAL INFORMATION:  
; APPLICANT: St.George-Hyslop, Peter H.  
; APPLICANT: Fraser, Paul E.  
; APPLICANT: University of Toronto  
; TITLE OF INVENTION: PROTEINS RELATED TO SCHIZOPHRENIA AND USES THEREOF  
; FILE REFERENCE: 1034/1H570  
; CURRENT APPLICATION NUMBER: US/09/945,258  
; PRIOR FILING DATE: 2001-08-31  
; PRIOR APPLICATION NUMBER: US 60/229,889  
; PRIOR FILING DATE: 2000-09-01  
; NUMBER OF SEQ ID NOS: 19  
; SOFTWARE: FastSeq for Windows Version 3.0  
; SEQ ID NO 18  
; LENGTH: 695  
; TYPE: PRT  
; ORGANISM: D. melanogaster  
US-09-945-258-18

Query Match	100.0%;	Score 3675;	DB 9;	Length 695;
Best Local Similarity	100.0%;	Pred. No. 0;		
Matches 695;	Conservative	0;	Mismatches	0;
			Indels	0;
			Gaps	0;
Qy	1	MEMRLNAAIWLILSYGATIAQGERTRDKMYEPTGGASCFFRLNGTHTQTCSSYSGSV	60	
Db	1	MEMRLNAAIWLILSYGATIAQGERTRDKMYEPTGGASCFFRLNGTHTQTCSSYSGSV	60	
Qy	61	GVLHLINVEADLEFLSSPPPPVAPMIPPHLFRNNMLRLKEAGPKNISVLLINRTNQ	120	
Db	61	GVLHLINVEADLEFLSSPPPPVAPMIPPHLFRNNMLRLKEAGPKNISVLLINRTNQ	120	
Qy	121	MKQFSHELNCNQNYSGLNSTSETCDASNPKNWPNWGTGLLHEDFPFFPIYIADLDQVTK	180	
Db	121	MKQFSHELNCNQNYSGLNSTSETCDASNPKNWPNWGTGLLHEDFPFFPIYIADLDQVTK	180	

181 LEKCFQDFNNHNYETHALRSICAVEVKSFMASAAVNTVCMTNFINNGLGSKYCDPLEG 240  
 181 LEKCFQDFNNHNYETHALRSICAVEVKSFMASAAVNTVCMTNFINNGLGSKYCDPLEG 240  
 241 RNVSPCTPESQOSETTLETVHTNEKFLVTCRLDTTMTDPGVGLGAMDSLMGFAVETHV 300  
 241 RNVSPCTPESQOSETTLETVHTNEKFLVTCRLDTTMTDPGVGLGAMDSLMGFAVETHV 300  
 301 AYLLKOLLPPQSKDLHNVLFVTENGESDYIGSORFYVDMKLOPFTSTGTPPIAFDNI 360  
 301 AYLLKOLLPPQSKDLHNVLFVTENGESDYIGSORFYVDMKLOPFTSTGTPPIAFDNI 360  
 361 DFMLDGLTDDISNIKULHNGTTLAQOILRLNNYAKSPRYGNLNIQSMASHLPPTS 420  
 361 DFMLDGLTDDISNIKULHNGTTLAQOILRLNNYAKSPRYGNLNIQSMASHLPPTS 420  
 421 AQSFLRDPDNFALILNARPNKYHYSTYDDADNVDFTYANTSKDFTQLTEVNDFKSLNP 480  
 421 AQSFLRDPDNFALILNARPNKYHYSTYDDADNVDFTYANTSKDFTQLTEVNDFKSLNP 480  
 481 DSLQMKVRNYSIVAMALYQITIGKEYTGTKVANPLMADEFLYCFLOSADCPLEKASYP 540  
 481 DSLQMKVRNYSIVAMALYQITIGKEYTGTKVANPLMADEFLYCFLOSADCPLEKASYP 540  
 541 GSQTLNLPNRYISVLGQSOESSGYTYRLLGYLLSQLQPDHNRDNCCTDPLHYFAGFNNI 600  
 541 GSQTLNLPNRYISVLGQSOESSGYTYRLLGYLLSQLQPDHNRDNCCTDPLHYFAGFNNI 600  
 601 GECELTONTYSHALSPAFLIDGYWSSGMYSTWTSTWQSFARIFLRPSNVHQTTLVS 660  
 601 GECELTONTYSHALSPAFLIDGYWSSGMYSTWTSTWQSFARIFLRPSNVHQTTLVS 660  
 661 GIVVLIISFCLVYIISRSSEVFLFDLPASNAALFG 695  
 661 GIVVLIISFCLVYIISRSSEVFLFDLPASNAALFG 695

RESULT 2  
 US-09-945-258-16  
 ; Sequence 16, Application US/09945258  
 ; Patent No. US20020058276A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: St. George-Hyslop, Peter H.  
 ; APPLICANT: Fraser, Paul E.  
 ; APPLICANT: University of Toronto  
 ; TITLE OF INVENTION: PROTEINS RELATED TO SCHIZOPHRENIA AND USES THEREOF  
 ; FILE REFERENCE: 1034/1H570  
 ; CURRENT APPLICATION NUMBER: US/09/945,258  
 ; CURRENT FILING DATE: 2001-08-31  
 ; PRIOR APPLICATION NUMBER: US 60/229,889  
 ; PRIOR FILING DATE: 2000-09-01  
 ; NUMBER OF SEQ ID NOS: 19  
 ; SOFTWARE: Fast-Seq for Windows Version 3.0  
 ; SEQ ID NO 16  
 ; LENGTH: 708  
 ; TYPE: PRT  
 ; ORGANISM: mouse  
 ; US-09-945-258-16

Query Match 21.4%; Score 787.5; DB 9; Length 708;  
 Best Local Similarity 30.6%; Pred. No. 1.5e-67;  
 Matches 220; Conservative 123; Mismatches 291; Indels 85; Gaps 22;  
 12 LLILSYGATIA--QGERTRDKMYEPIG-GASCFRLNGTHQTGCSSTYSGSVGLHLIN 67  
 17 LLILSFSVLGLCGNSVERKIYIPLNKAPCVRLNATHQICQSSISGDTGVIIHVE 76  
 68 VEADLEFLSSPPSPVAPMIPPHLFRNNMLRLKEAGPKNISVLLINRTNMQKFSHE 127  
 77 KEEDLKWLTGDPNPPYVWLLGKLFTRDVMKLGKTTTSIAGLAVTLAKPNSTSFSPS 136  
 128 LNCPNQVSLNSTSETCDANPAKN-WNPWGTGLLHEDFPFPIYYIADLDQVTKLSECFQ 186

Db 137 VQCPDNGFGIYSNSYGPDEFAHCKKTLNLELNGLAIVEDFSPFIPLLEDENETKVIKQCYQ 196  
 Qy 187 DFNNHNYETHALRSICAVEVKSFMASAAVNTVCMTNFINNGLGSKYCDPLEG 243  
 Db 197 DHNLGQNGSAPSPPLCAMQLFSHMHAVISTATCMRR-SFIQSTFISINPEIVCDPLSDYNV 255  
 Qy 244 SPCTPESQOSETTLETVHTNEKFLVTCRLDTTMTDPGVGLGAMDSLMGFAVETHVAYL 303  
 Db 256 WSMMLKPIN-----TSVGLDPDVRVVAATRLDSRSFFWNVAPGAESAVFTQLAAAEA 310  
 Qy 304 LKOLLPPQSKDLHNVLFVTENGESDYIGSORFYVDMKLOPFTSTGTPPIAFDNI 363  
 Db 311 LHK-APDVTTLNRNVFVFGQETFDIIGSRMVMYDMENKGF-----PVLENIDSF 361  
 Qy 364 LDIG-----TLDDISNIKULHNGTTLAQOILRLNNYAKSPRYGNLNIQSMASHLPPTS 420  
 Db 362 VELGQVALRTSLDMLWHMTDPMQSKNESVKNOVEDLLATLEKSGAGVPEVVLRLAQSOA- 420  
 Qy 414 AHLPPITSAQSFLRDPDNFALILNARPNKYHYSTYDDADNVDFTYANTSKDFTQLT 470  
 Db 421 --LPPSLOQLFLRA-RNISGVILADHSGSPHNRYIYQSIYDTAENINVTYPEWQSPEDLN 477  
 Qy 471 EVNDFKSLNPDLSLQMKVRNYSIVAMALYQITIGKEYTGTKVANPLMADEFLYCFLOSAD 530  
 Db 478 FVTD-----TAKALANVATVIALALYELAGTTFSSIQADPQTVTLGLYFLURAN 529  
 Qy 531 CPLFKA-----ASYPGSQTNLPPNRYISVLGQSOESSGYTYRLLGYLLSQL---QPD 581  
 Db 530 NSWFQSLIKHDLRSY---LDDRPLQHYIAV-----SSPTNTTVVQYALANLTGRATNL 580  
 Qy 582 HRDNCCTD---LP-----LHYFAGF-----NNIGCELTONTYSHALSPAFLIDGYD 624  
 Db 581 TREQQDPSKVPNESKDLYEYSWVQGFPMNSNRTERLPQCVRSTVRLARALSPAFELS--Q 638  
 Qy 625 WSSGMYSTWTSTWQSFARIFLRPSNVHQTTLVSIGVIVLIISFCLVYIISRSSEVFL 683  
 Db 639 WSSTESTWASERKWDIQAIFLIASKDLEFILIYGFSTFLVSLIVTYCINAKADVLF 697

RESULT 3  
 US-09-909-567B-45  
 ; Sequence 45, Application US/09909567B  
 ; Publication No. US20030022257A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Macina, Roberto A.  
 ; APPLICANT: Nair, Manoj  
 ; APPLICANT: Chen, Seiyu  
 ; TITLE OF INVENTION: Compositions and Methods Relating to Lung Specific Genes  
 ; FILE REFERENCE: DEX-0214  
 ; CURRENT APPLICATION NUMBER: US/09/909,567B  
 ; CURRENT FILING DATE: 2001-07-20  
 ; PRIOR APPLICATION NUMBER: 60/219,834  
 ; PRIOR FILING DATE: 2000-07-21  
 ; NUMBER OF SEQ ID NOS: 56  
 ; SOFTWARE: PatentIn version 3.1  
 ; SEQ ID NO 45  
 ; LENGTH: 690  
 ; TYPE: PRT  
 ; ORGANISM: Homo sapien  
 ; US-09-909-567B-45

Query Match 21.4%; Score 787; DB 10; Length 690;  
 Best Local Similarity 30.2%; Pred. No. 1.7e-67;  
 Matches 216; Conservative 129; Mismatches 292; Indels 78; Gaps 20;  
 11 WLILSYGATIAQGERTRDKMYEPIG-GASCFRLNGTHQTGCSSTYSGSVGLHLINVE 69  
 1 FLTLFTFRSGLCRGNSVERKIYIPLNKAPCVRLNATHQICQSSISGDTGVIIHVE 60  
 70 ADLEFLSSPPSPVAPMIPPHLFRNNMLRLKEAGPKNISVLLINRTNMQKFSHELN 129  
 61 EDLOWLTDGPNPPYVWLLGKLFTRDLMKLGKTRSIAGLAVSLTKPSASGSPSPVQ 120



QY 130 CPNOYSGINSTSETCDASNPAAK-NWNPWGTGLLHEDPFPPIYIADLDQVTKLEKCFQ 188  
 Db 121 CPNDGFGVYNSGPEFAHCREIQWNSGLNGLAYEDFPFIPLLEDENETKVKQCYQDH 180  
 QY 189 NNHNYETHALRSCLAVKSPMSAAVNTVCMTNFIN--NLGGSXYCDPLEGRNVSPP 246  
 Db 181 NLSQNGSAPFPCLCAMQLFSHMAVISTATCMRRSSIQSTFSINPEIVCDPLSDYNVWSM 240  
 QY 247 CTBESQOSETTLETVHNEKFIIVTCRLDTTTPMDGVLGAMDSLMGFVTHVAYLLKQ 306  
 Db 241 LKPIN-----TTGTLKPDPRVVAATLDRSFFWNPAPGAESAVASVFTQLAAAEAL-Q 294  
 QY 307 LLPPQSKDLHNLVFTNGESYDYGSRFYDMEKLOFPTSTGTPPIAFDNIIDMLDI 366  
 Db 295 KAPDVTTLPRNVMFVFFQGETFDYIGSRMVYDMEKGF-----PVQLENVDGFVEL 346  
 QY 367 GTLDDISNKL--H-----ALNGTTLAQOILRLNNYAKSPRYGNLNI--QSEMSAHLPP 418  
 Db 347 GQVALRTSLWMTDPVSKNESVRNQVEDLLATLEKSGA-GVPAVILRRPNQSQPLPP 405  
 QY 419 TSAQSFLRDPNFNALIL---NARPTKYYHSTYDDADNDVFTYANTSKDFTOLTVEYND 475  
 Db 406 SSLQRLFLRA-RNISGVVLADHSGAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNFVTD 464  
 QY 476 KSLNPDSLQMKVRNVSIVAMALYQTTITGKEYTGTQKVNPLMADEFLYCFLOQADCELEK 535  
 Db 465 AKALAD-----VATVIGRALYELAGGNFTVQADPQTVTRLYGLFLIKANNWSFQ 516  
 QY 536 A-----ASYPGSOLNPLPMRYISVLGSGQSSGYTYRLLGYLLSOLQ---PDIHRDNC 586  
 Db 517 SILRQDLRSYLDG---PLQHYIAV-----SSPTNTTVVQYALANLTGTVNVLTREQ 567  
 QY 587 TDL-----PLHYFAGFNIGECRLTTONYSHALSPAFIDGYSWSSG 628  
 Db 568 QDPSKVPSENKOLYEWVQGPLH-SNETDRLPCVRSSTARLARALSPAFELS--QMSST 624  
 QY 629 MYSTWTSTWTSQFSARIFLRPSNVHVTLLSVGIVVLIISFCLAVIISRSSEVL 683  
 Db 625 EYSTWTSERWKDIRAFILFIASKLELITLTVGFGILIFSLIVTYCINAKADVL 679

## RESULT 4

US-09-945-258-14  
 ; Sequence 14, Application US/09945258  
 ; Patent No. US20020058276A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: St. George-Hyslop, Peter H.  
 ; APPLICANT: Fraser, Paul E.  
 ; APPLICANT: University of Toronto  
 ; TITLE OF INVENTION: PROTEINS RELATED TO SCHIZOPHRENIA AND USES THEREOF  
 ; FILE REFERENCE: 1034/14570  
 ; CURRENT APPLICATION NUMBER: US/09/945,258  
 ; CURRENT FILING DATE: 2001-08-31  
 ; PRIOR APPLICATION NUMBER: US 60/229,889  
 ; PRIOR FILING DATE: 2000-09-01  
 ; NUMBER OF SEQ ID NOS: 19  
 ; SOFTWARE: FastSeq for Windows Version 3.0  
 ; SEQ ID NO 14  
 ; LENGTH: 709  
 ; TYPE: PRT  
 ; ORGANISM: human  
 US-09-945-258-14

Query Match 21.4%; Score 786.5; DB 9; Length 709;  
 Best Local Similarity 30.5%; Pred. No. 1.9e-67;  
 Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;  
 QY 12 LLLLSYGATIA---QGERTRDKMYEPIG-GACFRRLNGTHQGCSSSTYSGSVGVHLIN 67  
 Db 18 LRLLSFCVLLAGLCRNSVERKIIYIPNKTPCVRLLNATHQIGQSSISGDTGVHVVVE 77  
 QY 68 VRADLEFLSSPPSPYPAPMPPHFLTRNNLMELKEAGPKNTSVLLINRTQMOKFSHE 127

Db 78 KESDLQWLTGDNPPVPMVLLSKHFTRLDMEKLGKRTSRIAGLAVSLTTPSPASGFSPS 137  
 QY 128 LNCNPQVSGLNSTSETCDASNPAAK-NWNPWGTGLLHEDPFPPIYIADLDQVTKLEKCFQ 186  
 Db 138 VOCENDGFGVYNSGPEFAHCREIQWNSGLNGLAYEDFPFIPLLEDENETKVKQCYQ 197  
 QY 187 DFNNHNYETHALRSCLAVKSPMSAAVNTVCMTNFIN--NLGGSXYCDPLEGRNVS 244  
 Db 198 DNLNSQNGSAPFPCLCAMQLFSHMAVISTATCMRRSSIQSTFSINPEIVCDPLSDYNVW 257  
 QY 245 PCTBESQOSETTLETVHNEKFIIVTCRLDTTTPMDGVLGAMDSLMGFVTHVAYLL 304  
 Db 258 SMUKPIN-----TTGTLKPDPRVVAATLDRSFFWNPAPGAESAVASVFTQLAAAEAL 312  
 QY 305 KOLLPPQSKDLHNLVFTNGESYDYGSRFYDMEKLOFPTSTGTPPIAFDNIIDML 364  
 Db 313 -QKAPDVTTLPRNVMFVFFQGETFDYIGSRMVYDMEKGF-----PVQLENVDVSV 363  
 QY 365 DIGTLDDISNKL--H-----ALNGTTLAQOILRLNNYAKSPRYGNLNI--QSEMSAHL 416  
 Db 364 ELGQVALRTSLWMTDPVSKNESVRNQVEDLLATLEKSGA-GVPAVILRRPNQSQPL 422  
 QY 417 PPTSAQSFLRDPNFNALIL---NARPTKYYHSTYDDADNDVFTYANTSKDFTOLTVEY 473  
 Db 423 PSSLQRLFLRA-RNISGVVLADHSGAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNFVT 481  
 QY 474 DFKSLNPDSLQMKVRNVSIVAMALYQTTITGKEYTGTQKVNPLMADEFLYCFLOQADCEPL 533  
 Db 482 DTAKALAD-----VATVIGRALYELAGGNFTVQADPQTVTRLYGLFLIKANNWS 533  
 QY 534 FKA-----ASYPGSOLNPLPMRYISVLGSGQSSGYTYRLLGYLLSOLQ---PDIHRD 584  
 Db 534 FOSILRQDLRSYLDG---PLQHYIAV-----SSPTNTTVVQYALANLTGTVNVLTRE 584  
 QY 585 NCTDL-----PLHYFAGFNIGECRLTTONYSHALSPAFIDGYSWSSG 626  
 Db 585 QDPSKVPSENKOLYEWVQGPLH-SNETDRLPCVRSSTARLARALSPAFELS--QMS 641  
 QY 627 SQMYSTWTSTWTSQFSARIFLRPSNVHVTLLSVGIVVLIISFCLAVIISRSSEVL 683  
 Db 642 STEYSTWTSERWKDIRAFILFIASKLELITLTVGFGILIFSLIVTYCINAKADVL 698

## RESULT 5

US-10-147-493-202  
 ; Sequence 202, Application US/10147493  
 ; Publication No. US20040029217A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Baker, Kevin P.  
 ; APPLICANT: Beresini, Maureen  
 ; APPLICANT: Deforge, Laura  
 ; APPLICANT: Desnoyers, Luc  
 ; APPLICANT: Filvaroff, Ellen  
 ; APPLICANT: Gao, Wei-Qiang  
 ; APPLICANT: Gerritsen, Mary E.  
 ; APPLICANT: Goddard, Audrey  
 ; APPLICANT: Godowski, Paul J.  
 ; APPLICANT: Gurney, Austin L.  
 ; APPLICANT: Sherwood, Steven  
 ; APPLICANT: Smith, Victoria  
 ; APPLICANT: Stewart, Timothy A.  
 ; APPLICANT: Tumas, Daniel  
 ; APPLICANT: Watanabe, Colin K  
 ; APPLICANT: Wood, William  
 ; APPLICANT: Zhang, Zemin  
 ; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
 ; FILE REFERENCE: P3330RIC345  
 ; CURRENT APPLICATION NUMBER: US/10/147,493  
 ; CURRENT FILING DATE: 2002-05-17  
 ; Prior Application removed - See File Wrapper or Palm  
 ; NUMBER OF SEQ ID NOS: 550  
 ; SEQ ID NO 202

```

; LENGTH: 709
; TYPE: PRN
; ORGANISM: Homo Sapien
US-10-147-493-202

Query Match      21.4%; Score 786.5; DB 12; Length 709;
Best Local Similarity 30.5%; Pred. No. 1.9e-67;
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

QY 12 LLILSYGATIA---QGERTRDKMYEPIG-GASCRRRLNGTHQTGCSSTYSGSVGLHLIN 67
Db 18 LRLLSFCVLLAGLCRGSVERKIYIPLNKATPCVRLLNATHQIGCQSSISGDTGVHVE 77
QY 68 VEADLEFLLSPPSPYPAPMIPPHLFTNNMLRLKEAGPKNISVLLINRNQMKQFSHE 127
Db 78 KEEDLQWLVDGPNPPYMWLLESKHFTDLMEKLGKRTSRIAGLAVSFTQLAAEAL 312
QY 128 LNCNQYSGLNSTSTCDANPAK--NNPMTGTLHEDFPPIYIADLDQVTKLEKCFQ 186
Db 138 VQCPNDGFGVYSNSYGEFAHCREIQWNSLGNGLAYEDFSFPIFLEDENETKVIKQCYQ 197
QY 187 DFNHNYETHALRSICAVEKSFMSAAVTEVCWRRTNFIN--NLGGSKYCDPLEGRNVS 244
Db 198 DHNLQSGSAPTFLPCAMQLFSHMAVISTATCMRRSSIQTFSINPEIVCDPLSDYNW 257
QY 245 PPTPESQOSETTLETVHTNEKFIIVTCRLDTTMTFDGVLGAMDLSMGFAVFTHVAYLL 304
Db 258 SMLKPIN-----TTGTLKPDVVVAATLDSRFFWNVAPGASAVASFTQLAAEAL 312
QY 305 KQLLPQSKDLHNLVFTFNGBESYDIQSFYVDMKLOFPTSTGTPPIAFDNIDFML 364
Db 313 -QKAPDVTTLPNNVMFVFQGETFDYIGSSRMVYDMKGF-----PVQLENVDSFV 363
QY 365 DIGTLDLDSNKL--H-----ALNGTTLAQOILRLNNAKSPRYGFNLNI--QSEMSAHL 416
Db 364 ELQVARTSLLELWHTDPSQKNSVRNQVEDLLATLEKSGA-GVPAVILRRPNQOPL 422
QY 417 PPTSAQSFLLRDPNFNALIL---NARPTNKYHSTYDDADNVDFTYANTSKDFTQLTEVN 473
Db 423 PPSLQRLFLRA-RNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPELDNFVT 481
QY 474 DFKSLNPDLSQMKVRNVSSIVAMALYQITCKEYTGTKVANPLMADEFLYCFLOSADCP 533
Db 482 DTAKALAD-----VATVLGRALYELAGTNEFSDTVQADPQVTVRLLYGLIKANNWS 533
QY 534 FKA-----ASYPGSQLTNLPPMYISVLGGSQSSGYTVRLLYGLLSOLO---PDHNRD 584
Db 534 FQSLRQDLRSYLDG---PLQHYIAV-----SSPTNTTVVQYALANLTGTVNLTR 584
QY 585 NCTDL-----PLHYFAGFNNGECRLTTQNYSHALSPAFLLIDGVDWS 626
Db 585 QCQDPSKVPSENKDLVEYSWVQGPLH-SNETDRLPCVRSSTARLARALSPAFELS--QWS 641
QY 627 SGMYSTWTESTWQSFARIFLRPNVHQVTTLSVGIIVLISFCVLYIISRSSEVLF 683
Db 642 STEYSTWTESTRWKDIRARIFLIASKELELITLVGFGILIFSLIVTYCINAKADVLF 698

RESULT 6
US-10-145-127-202
; Sequence 202, Application US/10145127
; Publication No. US20040033558A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.

```

```

; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P330R1C252
; CURRENT APPLICATION NUMBER: US/10/145.127
; CURRENT FILING DATE: 2002-05-13
; Prior Application removed - See File Wrapper or Palm
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 202
; LENGTH: 709
; TYPE: PRN
; ORGANISM: Homo Sapien
US-10-145-127-202

```

```

Query Match      21.4%; Score 786.5; DB 12; Length 709;
Best Local Similarity 30.5%; Pred. No. 1.9e-67;
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

```

```

QY 12 LLILSYGATIA---QGERTRDKMYEPIG-GASCRRRLNGTHQTGCSSTYSGSVGLHLIN 67
Db 18 LRLLSFCVLLAGLCRGSVERKIYIPLNKATPCVRLLNATHQIGCQSSISGDTGVHVE 77
QY 68 VEADLEFLLSPPSPYPAPMIPPHLFTNNMLRLKEAGPKNISVLLINRNQMKQFSHE 127
Db 78 KEEDLQWLVDGPNPPYMWLLESKHFTDLMEKLGKRTSRIAGLAVSFTQLAAEAL 312
QY 128 LNCNQYSGLNSTSTCDANPAK--NNPMTGTLHEDFPPIYIADLDQVTKLEKCFQ 186
Db 138 VQCPNDGFGVYSNSYGEFAHCREIQWNSLGNGLAYEDFSFPIFLEDENETKVIKQCYQ 197
QY 187 DFNHNYETHALRSICAVEKSFMSAAVTEVCWRRTNFIN--NLGGSKYCDPLEGRNVS 244
Db 198 DHNLQSGSAPTFLPCAMQLFSHMAVISTATCMRRSSIQTFSINPEIVCDPLSDYNW 257
QY 245 PPTPESQOSETTLETVHTNEKFIIVTCRLDTTMTFDGVLGAMDLSMGFAVFTHVAYLL 304
Db 258 SMLKPIN-----TTGTLKPDVVVAATLDSRFFWNVAPGASAVASFTQLAAEAL 312
QY 305 KQLLPQSKDLHNLVFTFNGBESYDIQSFYVDMKLOFPTSTGTPPIAFDNIDFML 364
Db 313 -QKAPDVTTLPNNVMFVFQGETFDYIGSSRMVYDMKGF-----PVQLENVDSFV 363
QY 365 DIGTLDLDSNKL--H-----ALNGTTLAQOILRLNNAKSPRYGFNLNI--QSEMSAHL 416
Db 364 ELQVARTSLLELWHTDPSQKNSVRNQVEDLLATLEKSGA-GVPAVILRRPNQOPL 422
QY 417 PPTSAQSFLLRDPNFNALIL---NARPTNKYHSTYDDADNVDFTYANTSKDFTQLTEVN 473
Db 423 PPSLQRLFLRA-RNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPELDNFVT 481
QY 474 DFKSLNPDLSQMKVRNVSSIVAMALYQITCKEYTGTKVANPLMADEFLYCFLOSADCP 533
Db 482 DTAKALAD-----VATVLGRALYELAGTNEFSDTVQADPQVTVRLLYGLIKANNWS 533
QY 534 FKA-----ASYPGSQLTNLPPMYISVLGGSQSSGYTVRLLYGLLSOLO---PDHNRD 584
Db 534 FQSLRQDLRSYLDG---PLQHYIAV-----SSPTNTTVVQYALANLTGTVNLTR 584
QY 585 NCTDL-----PLHYFAGFNNGECRLTTQNYSHALSPAFLLIDGVDWS 626
Db 585 QCQDPSKVPSENKDLVEYSWVQGPLH-SNETDRLPCVRSSTARLARALSPAFELS--QWS 641
QY 627 SGMYSTWTESTWQSFARIFLRPNVHQVTTLSVGIIVLISFCVLYIISRSSEVLF 683
Db 642 STEYSTWTESTRWKDIRARIFLIASKELELITLVGFGILIFSLIVTYCINAKADVLF 698

```

## RESULT 7

```

US-10-160-503-202
; Sequence 202, Application US/10160503
; Publication No. US20040033559A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Goddard, Paul J.
; APPLICANT: Goddard, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P3330R1C446
; CURRENT APPLICATION NUMBER: US/10/160,503
; CURRENT FILING DATE: 2002-05-30
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 202
; LENGTH: 709
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-160-503-202

Query Match      21.4%; Score 786.5; DB 12; Length 709;
Best Local Similarity 30.5%; Pred. No. 1.9e-67;
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

QY 12 LLILSYGATIA---QGERTRDKMYEPIG-GASCFRLNGTHQGCSTYSGSVGLHLIN 67
Db 18 LRLLSFCVLLAGCRGNSVERKIYIPLNKTAPCVRLNATHQIGCQSSISGDTGVHVE 77
QY 68 VEADLEFLSSPPSPPPYAPMIPPHLFTRNNLMRLKEAGPKNISVLLINRTNQKQFSHE 127
Db 78 KEEDLQWLTDGPNPPYVWLLSKHFTRDIMELKRGTSRIAGLAVSLTKPSASGSPS 137
QY 128 LNCNPOYSGLNSTSETCDASNPAP-KNNPWGTGLLHEDFPPIYYIADLQVTKLEKCFQ 186
Db 138 VQCPNDGFGVYNSYGEPEFAHCREIQWNSLGNLAYEDFSFPFLLEDENETKVIKQCYQ 197
QY 187 DENNHVETHALRSICAVEVKSFMSAAVNTVEVCMRTNFNIN--NLGSKYCDPLEGRNVS 244
Db 198 DHNLSQNGSAPTPPLCAMQLFSSHAVISTATCMRRSSIQTSTFSINPEIVCDPLSDYNW 257
QY 245 PPTCPESQOSETTLETVHTNEKFIIVTCRLDTTTFMFDGVLGAMDSLGMGFAVETHVAYLL 304
Db 258 SMLKPIN-----TTGTLKPDPRVVVAATRLDSRSFFNVPAPGASAVASFTQLAAEAL 312
QY 305 KQLLPQSKDLNVLVFTNGESYDIYIGSFVYDMKQLQFPFESTGTPPIAFDNIIDFML 364
Db 313 -QKAPDVTTLPNNVMEVFQOGETFDYIGSRMVYDMKGF-----PVQLENVDSFV 363
QY 365 DIGTLDLDSIKL--H-----ALNGTTLAAQILRELNNYAKSPRYGNLNI--QSESAHL 416
Db 364 ELQOVALRTSLQWMTDTPVQKNESVRNQVDELLATLEKSGA-GVPAVILRPNQSQPL 422
QY 417 PPTSAGSFLRDPNFNALIL---NARPTNKYHSTYDDADNVDFTVANTSKDFTQTEVN 473
Db 423 PPSSLQRFLLA-RNISGVVLADSHGAFHNYQSIYDTAENINVSPEWLSPEDLNFTV 481
QY 474 DFKSLNPDSIQMKVRNVSSIVAMALYQITIGKYGTVGTKANPLMADDFLYCFIQSADCPPL 533
Db 482 DTAKALAD-----VATVLGRALVELAGGTNFSDTVQADPQTVTRLLYGLFIKANNWS 533

```

## RESULT 8

```

US-10-143-118-202
; Sequence 202, Application US/10143118
; Publication No. US20040038335A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Goddard, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P3330R1C228
; CURRENT APPLICATION NUMBER: US/10/143,118
; CURRENT FILING DATE: 2002-05-09
; Prior Application removed - See Palm or File Wrapper
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 202
; LENGTH: 709
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-143-118-202

Query Match      21.4%; Score 786.5; DB 12; Length 709;
Best Local Similarity 30.5%; Pred. No. 1.9e-67;
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

QY 12 LLILSYGATIA---QGERTRDKMYEPIG-GASCFRLNGTHQGCSTYSGSVGLHLIN 67
Db 18 LRLLSFCVLLAGCRGNSVERKIYIPLNKTAPCVRLNATHQIGCQSSISGDTGVHVE 77
QY 68 VEADLEFLSSPPSPPPYAPMIPPHLFTRNNLMRLKEAGPKNISVLLINRTNQKQFSHE 127
Db 78 KEEDLQWLTDGPNPPYVWLLSKHFTRDIMELKRGTSRIAGLAVSLTKPSASGSPS 137
QY 128 LNCNPOYSGLNSTSETCDASNPAP-KNNPWGTGLLHEDFPPIYYIADLQVTKLEKCFQ 186
Db 138 VQCPNDGFGVYNSYGEPEFAHCREIQWNSLGNLAYEDFSFPFLLEDENETKVIKQCYQ 197
QY 187 DENNHVETHALRSICAVEVKSFMSAAVNTVEVCMRTNFNIN--NLGSKYCDPLEGRNVS 244
Db 198 DHNLSQNGSAPTPPLCAMQLFSSHAVISTATCMRRSSIQTSTFSINPEIVCDPLSDYNW 257
QY 245 PPTCPESQOSETTLETVHTNEKFIIVTCRLDTTTFMFDGVLGAMDSLGMGFAVETHVAYLL 304
Db 258 SMLKPIN-----TTGTLKPDPRVVVAATRLDSRSFFNVPAPGASAVASFTQLAAEAL 312

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QY	305	KQLLPPQSKDLHNVLVFTFN	GESYDIYIGSQRFVYDMEK	LQFPPTSTGTPPIAFDNIDPML	363
Db	313	-QKAPDVTTILPRNVYFVFFQ	GETEDYIGSSRMVYDMEKGF	-----PVQLENVDSFV	363
QY	365	DIGTLDISNIKL--H--	ALNGTTTIAQQILERLNNVAK	SPRYGFNLNI--QSEWSAHL	416
Db	364	ELGQVALRTSLELWMHTDP	VSQKNSVRNOVEDLILATLEK	SGA-GVPAVILRRPNQSQPL	422
QY	417	PPTSQAQLRDPNFNALIL--	NARPNNKYHYHSYDDADNV	DFTYANTSKDFTOLTBN	473
Db	423	PPSLSQRLFLRA-RNIGSV	LADHSGAFHNKYQSYDTDA	ENINVSPEWLSPEEDLNEVT	481
QY	474	DFKSLNPDLSQMKVRNVSSI	IVAMALYOTITCKEYTGTV	KVNPMLMADEFYLCFQASD	CPL 533
Db	482	DTAKALAD-----	VATVLGRALYELAGTNFSD	TVOADPOVTVTRLLYGLIK	NNSW 533
QY	534	FKA-----	ASYPGSQLTNLPPMYISVL	GGSSQSYTYRLLGYLLSQLQ	---PDIHRD 584
Db	534	FQSILRQDLRSYLDG----	PLQHYIAV-----	SSPTNTTVVQYALANLGT	VVNLTR 584
QY	585	NCTDL-----	PLHYFAGFNNTGECRLTT	QNTYSHALSPAFIDIGYDWS	626
Db	585	QCQDPKVPENKDLYESWVQ	GPLH-SNETDRUPRCVR	STARLARALSPAFELS--	QWS 641
QY	627	SGMYSTWTESTWSOFSAFI	LRPNBNVHVTLSVIGVIL	LITSFCIAVYIISRSEVLF	683
Db	642	STEYSTWTESTRWKDIRA	IFLAIASKLELITLTVG	FGILIFSLIVTYCINAKAD	VLF 698
RESULT 9					
US-10-144-993-202					
; Sequence 202, Application US/10144993					
; Publication No. US20040038336A1					
; GENERAL INFORMATION:					
; APPLICANT: Baker, Kevin P.					
; APPLICANT: Beresini, Maureen					
; APPLICANT: Deforge, Laura					
; APPLICANT: Desnoyers, Luc					
; APPLICANT: Filvaroff, Ellen					
; APPLICANT: Gao, Wei-Qiang					
; APPLICANT: Gerritsen, Mary E.					
; APPLICANT: Goddard, Audrey					
; APPLICANT: Godowski, Paul J.					
; APPLICANT: Gurney, Austin L.					
; APPLICANT: Sherwood, Steven					
; APPLICANT: Smith, Victoria					
; APPLICANT: Stewart, Timothy A.					
; APPLICANT: Tumas, Daniel					
; APPLICANT: Watanabe, Colin K					
; APPLICANT: Wood, William					
; APPLICANT: Zhang, Zemin					
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC					
; TITLE OF INVENTION: ACIDS ENCODING THE SAME					
; FILE REFERENCE: F330R1C261					
; CURRENT APPLICATION NUMBER: US/10/144,993					
; CURRENT FILING DATE: 2002-05-13					
; Prior Application removed - See File Wrapper or Palm					
; NUMBER OF SEQ ID NOS: 550					
; SEQ ID NO 202					
; LENGTH: 709					
; TYPE: PRT					
; ORGANISM: Homo Sapien					
US-10-144-993-202					
Query Match 21.4%; Score 786.5; DB 12; Length 709;					
Best Local Similarity 30.5%; Pred. No. 1.9e-67;					
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;					
QY	12	LLILSYGATIA--	QGERTRDKWEPIG-GASC	FRLNGHTHOTGSSYSGSVG	VHLIN 67
Db	18	LRLLSFVCLAGLCRGNSV	ERKIYIPLNKNTAPCVRLN	ATHQIGCCSISGDTGVHYVE	77
QY	68	VEADLEFLLSSPPSPYAP	PIPHLFRNNLMRLKEAGPK	NISVVLLINRNTOMKQFSHE	127

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; PRIOR APPLICATION NUMBER: 60/056974
; PRIOR FILING DATE: 1997-08-26
; PRIOR APPLICATION NUMBER: 60/059113
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059115
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059117
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059122
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059184
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/059352
; PRIOR FILING DATE: 1997-09-19
; PRIOR APPLICATION NUMBER: 60/059588
; PRIOR FILING DATE: 1997-09-19
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 350
; SEQ ID NO 202
; LENGTH: 709
; TYPE: PRT
; ORGANISM: Homo Sapien
; US-10-158-787-202

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```

Query Match 21.4%; Score 786.5; DB 12; Length 709;
Best Local Similarity 30.5%; Pred. No. 1.9e-67;
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

QY 12 LLLLSGATIA--QGERFDKWEYDYG-GASCFRLNGHTQGCSTYSYSGVGLHLN 67
DB 18 LRLLFVULAGLCRNVERKIIYIPNKTAFCVRLNATHQICGSSISGDTGVHVE 77
QY 68 VEADEFLSSPPSPYAPMIPPHIFTRNNMLRLKEAGPKNISVLLINRNTQMOKFSHE 127
DB 78 KEEDLQWLITDGNPPYVLLSKHFTRLMEKLGKRTSRIAGLAVSLTKPSPGFSFS 137
QY 128 LNCNPQYSLNSETCTDASNAK-NWNPWGTLHEDPPPIYYIADLDQVTKLEKCFQ 186
DB 138 VQCPNDGFGVYNSYGPFAHCREIQWNSLGNGLAYEDSFIFLLEDENETKVKIQCY 197
QY 187 DENNHNYETHALRSICAVEKFSMSAAVTECMERTNIN--NLGSKYKCPLEGKRV 244
DB 198 DNLNLSONGAPTFPLCAMQLFSGHMAVISTATCMRRSSIQSTFSINPEIVCDPLSDYNV 257
QY 245 PCTPESQOSETTLEVTHTNEKFIIVTCRLDTITTFDGVGLGMDSLMGFAVTHVAYLL 304
DB 258 SMLKPIN---TTGTLKPDVVVAATRLDSRSPFNVPAGASAVAFVTLAAAEAL 312
QY 305 KOLLPPQSKDLNVLVFTNGESYDYGQRFVYDMEKLOFTTESTGTPTPIADNIDFML 364
DB 313 -QKAPDVTTLPRNVMPVFFQGETFDYIGSSRVYDMEKGF-----PVQLENVDSPV 363
QY 365 DIGTLLDISNKL--H---ALNGTTLAQILRLNNYAKSPRYGHNLI--QSEMSAHL 416
DB 364 ELGVALRTSUELWMHTDPVQKSNESVRNQVEDLIALTEKSGA-GVPAVILRRPNQSQL 422
QY 417 PPTSAQSFLRRDPNFNALIL---NARPTNKYHYSTYDDADNDVDFYANTSKDFTQTEYN 473
DB 423 PPSSLQRLFLRA-RNISGVVLADHSGAFHNKYQSIYDTAENINVSPEWLSPEEDLNFTY 481
QY 474 DFKSLNPDSLQKVRNVSSIVAMALYQTTTGKYEYGTGVANPLMADEFLYCFLOQADCLP 533
DB 482 DTAKALAD-----VATVGLRALYELAGGTNFSDTVQADPQTVTRLLYGLFLIKANNWS 533
QY 534 EKA-----ASYEGSQLTNLPPMYRYSVLGGQESSGYTYRLLGYLLSLOLQ---PDHRD 584
DB 534 FOSILRQDLRSYLDG-----PLQHYIAY-----SSPTNTYVQVALANLTGTVNLTR 584
QY 585 NCTDL-----PLHYFAGFNNGICEKLTQNYSHALSPAFLLIDGYDWS 626
DB 585 QCQDPKVPSENKOLYEYSWQGPLH-SNETDLPCVSTARLARALSPAFELS--QWS 641

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```

QY 627 SQMYSTWTESTWQSARIFLRPSNVHQVTTLSVGIVLIIISFCLVYIISRSSEVLP 683
DB 642 STEYSTWTESTRWKDIRARIFLFIASKLELELITLTVGFGILIESLIVTYCINAKADVLP 698

```

```

RESULT 11
US-10-028-072-202
; Sequence 202, Application US/10028072
; Publication No. US20030004311A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang
; TITLE OF INVENTION:
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/028,072
; CURRENT FILING DATE: 2001-12-19
; PRIOR APPLICATION NUMBER: 60/049911
; PRIOR FILING DATE: 1997-06-18
; PRIOR APPLICATION NUMBER: 60/056974
; PRIOR FILING DATE: 1997-08-26
; PRIOR APPLICATION NUMBER: 60/059113
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059115
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059117
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059122
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059184
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/059352
; PRIOR FILING DATE: 1997-09-19
; PRIOR APPLICATION NUMBER: 60/059588
; PRIOR FILING DATE: 1997-09-19
; PRIOR APPLICATION NUMBER: 60/059836
; PRIOR FILING DATE: 1997-09-24
; PRIOR APPLICATION NUMBER: 60/062250
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/062285
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/062287
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/062814
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/062816
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063045
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063082
; PRIOR FILING DATE: 1997-10-31
; PRIOR APPLICATION NUMBER: 60/063127
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/063327
; PRIOR FILING DATE: 1997-10-27
; PRIOR APPLICATION NUMBER: 60/063329

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;	PRIOR FILING DATE:	1997-10-27	
;	PRIOR APPLICATION NUMBER:	60/063550	
;	PRIOR FILING DATE:	1997-10-28	
;	PRIOR APPLICATION NUMBER:	60/063561	
;	PRIOR FILING DATE:	1997-10-28	
;	PRIOR APPLICATION NUMBER:	60/063704	
;	PRIOR FILING DATE:	1997-10-29	
;	PRIOR APPLICATION NUMBER:	60/063733	
;	PRIOR FILING DATE:	1997-10-29	
;	PRIOR APPLICATION NUMBER:	60/063735	
;	PRIOR FILING DATE:	1997-10-29	
;	PRIOR APPLICATION NUMBER:	60/063738	
;	PRIOR FILING DATE:	1997-10-29	
;	PRIOR APPLICATION NUMBER:	60/063755	
;	PRIOR FILING DATE:	1997-10-17	
;	PRIOR APPLICATION NUMBER:	60/064248	
;	PRIOR FILING DATE:	1997-11-03	
;	PRIOR APPLICATION NUMBER:	60/064809	
;	PRIOR FILING DATE:	1997-11-07	
;	PRIOR APPLICATION NUMBER:	60/065186	
;	PRIOR FILING DATE:	1997-11-12	
;	PRIOR APPLICATION NUMBER:	60/065846	
;	PRIOR FILING DATE:	1997-11-17	
;	PRIOR APPLICATION NUMBER:	60/066364	
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;	PRIOR APPLICATION NUMBER:	60/066453	
;	PRIOR FILING DATE:	1997-11-24	
;	PRIOR APPLICATION NUMBER:	60/066511	
;	PRIOR FILING DATE:	1997-11-24	
;	PRIOR APPLICATION NUMBER:	60/066770	
;	PRIOR FILING DATE:	1997-11-24	
;	PRIOR APPLICATION NUMBER:	60/069212	
;	PRIOR FILING DATE:	1997-12-11	
;	PRIOR APPLICATION NUMBER:	60/069278	
;	PRIOR FILING DATE:	1997-12-11	
;	PRIOR APPLICATION NUMBER:	60/069334	
;	PRIOR FILING DATE:	1997-12-11	
;	PRIOR APPLICATION NUMBER:	60/069694	
;	PRIOR FILING DATE:	1997-12-16	
;	PRIOR APPLICATION NUMBER:	60/072320	
;	PRIOR FILING DATE:	1998-01-23	
;	PRIOR APPLICATION NUMBER:	60/073612	
;	PRIOR FILING DATE:	1998-02-04	
;	PRIOR APPLICATION NUMBER:	60/074086	
;	PRIOR FILING DATE:	1998-02-09	
;	PRIOR APPLICATION NUMBER:	60/074092	
;	PRIOR FILING DATE:	1998-02-09	
;	PRIOR APPLICATION NUMBER:	60/077791	
;	PRIOR FILING DATE:	1998-03-12	
;	PRIOR APPLICATION NUMBER:	60/078910	
;	PRIOR FILING DATE:	1998-03-20	
;	PRIOR APPLICATION NUMBER:	60/079294	
;	PRIOR FILING DATE:	1998-03-25	
;	PRIOR APPLICATION NUMBER:	60/079663	
;	PRIOR FILING DATE:	1998-02-27	
;	PRIOR APPLICATION NUMBER:	60/079728	
;	PRIOR FILING DATE:	1998-03-27	
;	PRIOR APPLICATION NUMBER:	60/080165	
;	PRIOR FILING DATE:	1998-03-31	
;	PRIOR APPLICATION NUMBER:	60/081203	
;	PRIOR FILING DATE:	1998-04-09	
;	PRIOR APPLICATION NUMBER:	60/081229	
;	PRIOR FILING DATE:	1998-04-09	
;	PRIOR APPLICATION NUMBER:	60/081695	
;	PRIOR FILING DATE:	1998-04-14	
;	PRIOR APPLICATION NUMBER:	60/081817	
;	PRIOR FILING DATE:	1998-04-15	
;	PRIOR APPLICATION NUMBER:	60/081818	
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;	PRIOR APPLICATION NUMBER:	60/082999	
;	PRIOR FILING DATE:	1998-04-24	
;	PRIOR APPLICATION NUMBER:	60/083322	
;	PRIOR FILING DATE:	1998-04-28	

1	PRIOR APPLICATION NUMBER: 60/083544
2	PRIOR FILING DATE: 1998-04-29
3	PRIOR APPLICATION NUMBER: 60/084600
4	PRIOR FILING DATE: 1998-05-07
5	PRIOR APPLICATION NUMBER: 60/084627
6	PRIOR FILING DATE: 1998-05-07
7	PRIOR APPLICATION NUMBER: 60/084637
8	PRIOR FILING DATE: 1998-05-07
9	PRIOR APPLICATION NUMBER: 60/085149
10	PRIOR FILING DATE: 1998-05-12
11	PRIOR APPLICATION NUMBER: 60/085323
12	PRIOR FILING DATE: 1998-05-13
13	PRIOR APPLICATION NUMBER: 60/085338
14	PRIOR FILING DATE: 1998-05-13
15	PRIOR APPLICATION NUMBER: 60/085339
16	PRIOR FILING DATE: 1998-05-13
17	PRIOR APPLICATION NUMBER: 60/085579
18	PRIOR FILING DATE: 1998-05-15
19	PRIOR APPLICATION NUMBER: 60/085697
20	PRIOR FILING DATE: 1998-05-15
21	PRIOR APPLICATION NUMBER: 60/085704
22	PRIOR FILING DATE: 1998-05-15
23	PRIOR APPLICATION NUMBER: 60/086414
24	PRIOR FILING DATE: 1998-05-22
25	PRIOR APPLICATION NUMBER: 60/086430
26	PRIOR FILING DATE: 1998-05-22
27	PRIOR APPLICATION NUMBER: 60/087106
28	PRIOR FILING DATE: 1998-05-28
29	PRIOR APPLICATION NUMBER: 60/088026
30	PRIOR FILING DATE: 1998-06-04
31	PRIOR APPLICATION NUMBER: 60/088730
32	PRIOR FILING DATE: 1998-06-10
33	PRIOR APPLICATION NUMBER: 60/088741
34	PRIOR FILING DATE: 1998-06-10
35	PRIOR APPLICATION NUMBER: 60/088810
36	PRIOR FILING DATE: 1998-06-10
37	PRIOR APPLICATION NUMBER: 60/088858
38	PRIOR FILING DATE: 19/98-06-11
39	PRIOR APPLICATION NUMBER: 60/089532
40	PRIOR FILING DATE: 1998-06-17
41	PRIOR APPLICATION NUMBER: 60/089599
42	PRIOR FILING DATE: 1998-06-17
43	PRIOR APPLICATION NUMBER: 60/089907
44	PRIOR FILING DATE: 1998-06-18
45	PRIOR APPLICATION NUMBER: 60/089947
46	PRIOR FILING DATE: 1998-06-19
47	PRIOR APPLICATION NUMBER: 60/090349
48	PRIOR FILING DATE: 1998-06-23
49	PRIOR APPLICATION NUMBER: 60/090429
50	PRIOR FILING DATE: 1998-06-24
51	PRIOR APPLICATION NUMBER: 60/090445
52	PRIOR FILING DATE: 1998-06-24
53	PRIOR APPLICATION NUMBER: 60/090538
54	PRIOR FILING DATE: 1998-06-24
55	PRIOR APPLICATION NUMBER: 60/090863
56	PRIOR FILING DATE: 1998-06-26
57	PRIOR APPLICATION NUMBER: 60/091360
58	PRIOR FILING DATE: 1998-07-01
59	PRIOR APPLICATION NUMBER: 60/091519
60	PRIOR FILING DATE: 1998-07-02
61	PRIOR APPLICATION NUMBER: 60/091982
62	PRIOR FILING DATE: 1998-07-07

Query Match 21.4%; Score 786.5; DB 14; Length 709;  
Best Local Similarity 30.5%; Pred. No. 1.9e-67;  
Matches 219; Conservative 127; Mismatches 290; Indels 81;

[illegible]

Db 78 KEDLQWLVDGNPPYVWVLLSKHFTDRDLMEKLGKRTSRIAGLAVSLTKPSPASGSPS 137  
QY 128 LNCNPQYSGLNSTSETCDASNPAPK-NWNPWGTLGHHEDFPPIYYIADLDQVTKLEKCFQ 186  
Db 138 VQCPNDGFGVYNSYGEFAHCRFQIOWNSLGNGLAYEDFPFIFFLEDENETKVIKQCYQ 197  
QY 187 DENNNHYETHALRSCLCAVEKVSFMSAAVTEVCMRTNFIN--NLGSKYCDPLEGRNVS 244  
Db 198 DHNLSQNGSAPTPCLCAMQLFSHHAIVSTATCMRRSSIQTSTFINSPEIYVCDPLSDYNW 257  
QY 245 PPTCSQSQSETTLETHTNEKPIVTCRLDTTMTFDGVLGMDSLMGFAVTHVAYLL 304  
Db 258 SMLKPIN-----TTGTLKPDDRVAATRLDSRSFFWNVAPGASAVASFTQLAAAEAL 312  
QY 305 KQLLPQSKDLHNVLFVTFNGESYDIQSGORFYVDMKLOFPTSTGTPPIAFDNDIFML 364  
Db 313 -QKAPDVTTLPNNVMEVFFQGETFDYIGSSRMVYDMKGF-----PVQLENVDSFV 363  
QY 365 DIGTLDDISNKL--H-----ALNGTTLAQOILRLNNYAKSPRYGFNLNI--QSEMSAHL 416  
Db 364 ELGQVALRTSLMLWHTDPVSQKNESVRQVEDLLATLEKSGA-GVPVILRRPNOSQPL 422  
QY 417 PPTSQSFRLRDPNFNALIL---NARPTKYHSTYDDADNDVDFTYANTSKDPTQTEVN 473  
Db 423 PPSLQRFLLRA-RNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFTV 481  
QY 474 DFKSLNPDSLOMKVRNVSSIVAMALYQTTIGKTYGTGVKVNPLMADEFLYCFIQSADCP 533  
Db 482 DTKALAD-----VATVGLRALYELAGTNFSDTVQADPQTVTRLLYGLFIKANNSW 533  
QY 534 FKA-----ASYPGSQLTNLPPMYIISVLGSGOESSGYTYRLIGYLLSOLQ---PDIHRD 584  
Db 534 FQSILRQDLRSYLGDG----PLQHYIAV-----SSPTNTYVVOYALANLTGTVNLTR 584  
QY 585 NCTDL-----PLHYFAGFNIGECRLTTONYSHALSAPFLIDGYDWS 626  
Db 585 QCQDPKVPSENKDLYEYSWVQGPLH-SNETDRLPRCVSTARLARALSAPFELS--QWS 641  
QY 627 SGMYSTWSTESWQSFARIFLRPSNVHQTTLVSGIVVLLISFCLVYIISSEVLP 683  
Db 642 STEYSTWSTESRWKDIRARIFLIASKLELITLTVGFGILFSLIVTYCINAKADVL 698

## RESULT 12

US-10-121-049-202  
; Sequence 202, Application US/10121049  
; Publication No. US2003002239A1  
; GENERAL INFORMATION:  
; APPLICANT: Baker, Kevin P.  
; APPLICANT: Beresini, Maureen  
; APPLICANT: DeForge, Laura  
; APPLICANT: Desnoyers, Luc  
; APPLICANT: Filvaroff, Ellen  
; APPLICANT: Gao, Wei-Qiang  
; APPLICANT: Gerritsen, Mary E.  
; APPLICANT: Goddard, Audrey  
; APPLICANT: Godowski, Paul J.  
; APPLICANT: Gurney, Austin L.  
; APPLICANT: Sherwood, Steven  
; APPLICANT: Smith, Victoria A.  
; APPLICANT: Stewart, Timothy A.  
; APPLICANT: Tamas, Daniel  
; APPLICANT: Watanabe, Colin K  
; APPLICANT: Wood, William  
; APPLICANT: Zhang, Zemin  
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
; FILE REFERENCE: ACIDS ENCODING THE SAME  
; CURRENT APPLICATION NUMBER: US/10/121,049  
; CURRENT FILING DATE: 2002-04-12  
; Prior Application removed - See File Wrapper or Palm  
; NUMBER OF SEQ ID NOS: 550  
; SEQ ID NO 202

; LENGTH: 709  
; TYPE: PRT  
; ORGANISM: Homo Sapien  
US-10-121-049-202

## Query Match 21.4%; Score 786.5; DB 14; Length 709;

Best Local Similarity 30.5%; Pred. No. 1.9e-67;  
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

QY 12 LLILSYGATIA---QGERTRDKMYEPIG-GASCFRRLNGTHQGCSTYSYSGSVGLHLIN 67  
Db 18 LRLLSFCVLLAGCRGNSVERKIYIIPINKTAPCVRLNLNATHQGCCSSISGDTGVHIVE 77  
QY 68 VEADLEFLSSPSPYPYAPMIPPHLEFRNNLMELKEAGPKNISVLLINRTNMKOFKFSHE 127  
Db 78 KERDLQWLVDGNPPYVWVLLSKHFTDRDLMEKLGKRTSRIAGLAVSLTKPSPASGSPS 137  
QY 128 LNCNPQYSGLNSTSETCDASNPAPK-NWNPWGTLGHHEDFPPIYYIADLDQVTKLEKCFQ 186  
Db 138 VQCPNDGFGVYNSYGEFAHCRFQIOWNSLGNGLAYEDFPFIFFLEDENETKVIKQCYQ 197  
QY 187 DENNNHYETHALRSCLCAVEKVSFMSAAVTEVCMRTNFIN--NLGSKYCDPLEGRNVS 244  
Db 198 DHNLSQNGSAPTPCLCAMQLFSHHAIVSTATCMRRSSIQTSTFINSPEIYVCDPLSDYNW 257  
QY 245 PPTCSQSQSETTLETHTNEKPIVTCRLDTTMTFDGVLGMDSLMGFAVTHVAYLL 304  
Db 258 SMLKPIN-----TTGTLKPDDRVAATRLDSRSFFWNVAPGASAVASFTQLAAAEAL 312  
QY 305 KQLLPQSKDLHNVLFVTFNGESYDIQSGORFYVDMKLOFPTSTGTPPIAFDNDIFML 364  
Db 313 -QKAPDVTTLPNNVMEVFFQGETFDYIGSSRMVYDMKGF-----PVQLENVDSFV 363  
QY 365 DIGTLDDISNKL--H-----ALNGTTLAQOILRLNNYAKSPRYGFNLNI--QSEMSAHL 416  
Db 364 ELGQVALRTSLMLWHTDPVSQKNESVRQVEDLLATLEKSGA-GVPVILRRPNOSQPL 422  
QY 417 PPTSQSFRLRDPNFNALIL---NARPTKYHSTYDDADNDVDFTYANTSKDPTQTEVN 473  
Db 423 PPSLQRFLLRA-RNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFTV 481  
QY 474 DFKSLNPDSLOMKVRNVSSIVAMALYQTTIGKTYGTGVKVNPLMADEFLYCFIQSADCP 533  
Db 482 DTKALAD-----VATVGLRALYELAGTNFSDTVQADPQTVTRLLYGLFIKANNSW 533  
QY 534 FKA-----ASYPGSQLTNLPPMYIISVLGSGOESSGYTYRLIGYLLSOLQ---PDIHRD 584  
Db 534 FQSILRQDLRSYLGDG----PLQHYIAV-----SSPTNTYVVOYALANLTGTVNLTR 584  
QY 585 NCTDL-----PLHYFAGFNIGECRLTTONYSHALSAPFLIDGYDWS 626  
Db 585 QCQDPKVPSENKDLYEYSWVQGPLH-SNETDRLPRCVSTARLARALSAPFELS--QWS 641  
QY 627 SGMYSTWSTESWQSFARIFLRPSNVHQTTLVSGIVVLLISFCLVYIISSEVLP 683  
Db 642 STEYSTWSTESRWKDIRARIFLIASKLELITLTVGFGILFSLIVTYCINAKADVL 698

## RESULT 13

US-10-123-904-202  
; Sequence 202, Application US/10123904  
; Publication No. US20030022328A1  
; GENERAL INFORMATION:  
; APPLICANT: Baker, Kevin P.  
; APPLICANT: Beresini, Maureen  
; APPLICANT: DeForge, Laura  
; APPLICANT: Desnoyers, Luc  
; APPLICANT: Filvaroff, Ellen  
; APPLICANT: Gao, Wei-Qiang  
; APPLICANT: Gerritsen, Mary E.  
; APPLICANT: Goddard, Audrey  
; APPLICANT: Godowski, Paul J.  
; APPLICANT: Gurney, Austin L.



```

; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; FILE REFERENCE: P3330R1C54
; CURRENT APPLICATION NUMBER: US/10/123,904
; CURRENT FILING DATE: 2002-04-16
; Prior Application removed - See File Wrapper or Palm
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 202
; LENGTH: 709
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-123-904-202

Query Match 21.4%; Score 786.5; DB 14; Length 709;
Best Local Similarity 30.5%; Pred. No. 1.9e-67;
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

Qy 12 LLILSYGATIA---QGERTRDKMYEPIG-GASCERRLNGTHQTGCSSTYSGSVGLHLIN 67
Db 18 LRLLSFCVLLAGLCRGNSVERKIYIPLNKTAPCVRLLNATHQIGCQSSISDGTGVHVE 77
Qy 68 VEADLEFLSSPPSPPYAPMIPPHLFTRNMLRLKEAGPKNISVLLINRTNMQKQFSHE 127
Db 78 KEEDLQWLTDGPNPPYVLLSKHFTDRDLMEKLGKRTSRIAGLAVSLTKPSPASGSPS 137
Qy 128 LNCNPQVSGNLSTSETCDASNPAC-NWNPWGTGLLHEDFPPIYIADLDQVTKLEKCFQ 186
Db 138 VOCENDGFGVYSNGYGEFAHCHREIQWNSLGNLGLAYEDFSPFILLEDENETKVKQCYQ 197
Qy 187 DFNNHNYETHALRSCLAVEKSFMSAAVNTVCMMRTNFIN--NLGGSKYCDPLEGRNVS 244
Db 198 DHNLSONGSAPTFFLCAMQLFESHMHAIVSTATCMRSSIQSTFSINPEIVCDPLSDYNVW 257
Qy 245 PPTPESQOSETTLEVTHTNEKFIIVTCRLDTTMTDFGVLGAMDSLMGFVTHVAYLL 304
Db 258 SMLKPIN-----TTGTLKPDVVRVVAATRLDSRFFWNVAPGAESAASFVTLQAAAEAL 312
Qy 305 KQLLPPQSKDLHNVLFTVNGESYDYGSRFVYDMKELQFPTESTGTPTPIADNIDFML 364
Db 313 -QKAPDVTTLPNNVMVFFQGETFDYIGSRMVYDMKELQF-----PVQLENVDSFV 363
Qy 365 DIGWLDISNKL--H-----ALNGTTTAAQILRLNNYAKSPRYGFNLNI--QSEMSAHL 416
Db 364 ELGQVALRTSLELWMHTDPVSKNESVRNQVEDLLATLEKSGA-GVPAVILRRPNQSQPL 422
Qy 417 PPTSAQSFLLRDPNFNALIL---NARPTNKYHSTYDDADNVDYANTSKDFTQLTVEVN 473
Db 423 PPSLQQLFLRA-RNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFTV 481
Qy 474 DFKSLNPDSLQMKVRNVSSIVAMALYQITIGKEYTGTGVANPLMADEFLYCFQASDCPL 533
Db 482 DTAKALAD-----VATVGLRALYELAGTNFSDTVQADPQVTRLLYGLFLKANNWS 533
Qy 534 FKA-----ASYGQSTNLPMPMYISVLGGSQSSGYTYRLLGYLLSOLQ---PDHHRD 584
Db 534 FQSLRQDLRSYLDG---PLQHYIAV-----SSPTNTTVVQYALANLTGTVNLTRE 584
Qy 585 NCTDL-----PLHPFAGNNTGBCRLTITQNTYSHALSAPFLIDGVDWS 626
Db 585 QCQDPKSPVSNKDLFYYSWQGLH--SNETDRLPKRCVRSSTARLARALSPAFELS--QWS 641
Qy 627 SGMYSTWTSTWQSFARIFLRPNHMQVTLSYGIIVLLISFCVLIISRSSEVLF 683
Db 642 STEYSTWTSEKWDIRARIFLIASKELELITLVGFGLIFLSLIVTYCINAKADVLF 698

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RESULT 14
US-10-140-470-202
; Sequence 202, Application US/10140470
; Publication No. US20030022331A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Deanoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Geritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; TITLE OF INVENTION: ACIDS ENCODING THE SAME
; FILE REFERENCE: P3330R1C160
; CURRENT APPLICATION NUMBER: US/10/140,470
; CURRENT FILING DATE: 2002-05-06
; Prior Application removed - See Palm or File Wrapper
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 202
; LENGTH: 709
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-140-470-202

Query Match 21.4%; Score 786.5; DB 14; Length 709;
Best Local Similarity 30.5%; Pred. No. 1.9e-67;
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

Qy 12 LLILSYGATIA---QGERTRDKMYEPIG-GASCERRLNGTHQTGCSSTYSGSVGLHLIN 67
Db 18 LRLLSFCVLLAGLCRGNSVERKIYIPLNKTAPCVRLLNATHQIGCQSSISDGTGVHVE 77
Qy 68 VEADLEFLSSPPSPPYAPMIPPHLFTRNMLRLKEAGPKNISVLLINRTNMQKQFSHE 127
Db 78 KEEDLQWLTDGPNPPYVLLSKHFTDRDLMEKLGKRTSRIAGLAVSLTKPSPASGSPS 137
Qy 128 LNCNPQVSGNLSTSETCDASNPAC-NWNPWGTGLLHEDFPPIYIADLDQVTKLEKCFQ 186
Db 138 VOCENDGFGVYSNGYGEFAHCHREIQWNSLGNLGLAYEDFSPFILLEDENETKVKQCYQ 197
Qy 187 DFNNHNYETHALRSCLAVEKSFMSAAVNTVCMMRTNFIN--NLGGSKYCDPLEGRNVS 244
Db 198 DHNLSONGSAPTFFLCAMQLFESHMHAIVSTATCMRSSIQSTFSINPEIVCDPLSDYNVW 257
Qy 245 PPTPESQOSETTLEVTHTNEKFIIVTCRLDTTMTDFGVLGAMDSLMGFVTHVAYLL 304
Db 258 SMLKPIN-----TTGTLKPDVVRVVAATRLDSRFFWNVAPGAESAASFVTLQAAAEAL 312
Qy 305 KQLLPPQSKDLHNVLFTVNGESYDYGSRFVYDMKELQFPTESTGTPTPIADNIDFML 364
Db 313 -QKAPDVTTLPNNVMVFFQGETFDYIGSRMVYDMKELQF-----PVQLENVDSFV 363
Qy 365 DIGTLDIDISNKL--H-----ALNGTTTAAQILRLNNYAKSPRYGFNLNI--QSEMSAHL 416
Db 364 ELGQVALRTSLELWMHTDPVSKNESVRNQVEDLLATLEKSGA-GVPAVILRRPNQSQPL 422
Qy 417 PPTSAQSFLLRDPNFNALIL---NARPTNKYHSTYDDADNVDYANTSKDFTQLTVEVN 473
Db 423 PPSLQQLFLRA-RNISGVVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFTV 481
Qy 474 DFKSLNPDSLQMKVRNVSSIVAMALYQITIGKEYTGTGVANPLMADEFLYCFQASDCPL 533

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Db 482 DTAKALAD-----VATVGLRALYELAGTNEFSDTVQADPQTVTRLLYGLIKANNWSW 533  
 QY 534 FKA-----ASYPGSQTNLPPMYIISVLGGSQSSGYTVRLLYGLLSQIQ-----PDJHRD 584  
 Db 534 FQSILRQDLRSYLGDG-----PLQHYIAV-----SSPTNTTVVQYALANLTGTVVNLTRE 584  
 QY 585 NCTDL-----PLHYFAGFNNIGECRLTTONYSHALSPAFLIDGYDWS 626  
 Db 585 QCQDPKVPSENKDLVEYSWVQGLH-SNETDRLPCVRSTARLARALSPAFLS--OWS 641  
 QY 627 SGMYSTWTESTWSQFSARIFLRPSNVHQVTTLSYGVIVLIIISFCVLIISRSSEVLF 683  
 Db 642 STEYSTWTESTSRWKDIRARIFLIASKELELITLTVGFGILIFSILVITYCINAKADVLF 698

RESULT 15

US-10-175-746-202  
 ; Sequence 202, Application US/10175746  
 ; Publication No. US20030027270A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Baker, Kevin P.  
 ; APPLICANT: Beresini, Maureen  
 ; APPLICANT: DeForge, Laura  
 ; APPLICANT: Desnoyers, Luc  
 ; APPLICANT: Filvaroff, Ellen  
 ; APPLICANT: Gao, Wei-Qiang  
 ; APPLICANT: Gerritsen, Mary B.  
 ; APPLICANT: Goddard, Audrey  
 ; APPLICANT: Godowski, Paul J.  
 ; APPLICANT: Gurney, Austin L.  
 ; APPLICANT: Sherwood, Steven  
 ; APPLICANT: Smith, Victoria  
 ; APPLICANT: Stewart, Timothy A.  
 ; APPLICANT: Tumas, Daniel  
 ; APPLICANT: Watanabe, Colin X  
 ; APPLICANT: Wood, William  
 ; APPLICANT: Zhang, Zemin  
 ; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
 ; FILE REFERENCE: P3330R1C353  
 ; CURRENT APPLICATION NUMBER: US/10/175,746  
 ; CURRENT FILING DATE: 2002-06-19  
 ; Prior Application removed - See File Wrapper or Palm  
 ; NUMBER OF SEQ ID NOS: 550  
 ; SEQ ID NO 202  
 ; LENGTH: 709  
 ; TYPE: PRT  
 ; ORGANISM: Homo Sapien  
 ; US-10-175-746-202

Query Match 21.4%; Score 786.5; DB 14; Length 709;  
 Best Local Similarity 30.5%; Pred. No. 1.9e-67;  
 Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;  
 QY 12 LAILSYGATIA---QGERTRDKMYEPIG-GASCFRRLNGTHGTGCSSTYSYSGVGLHLIN 67  
 Db 18 LRLLSFCVLLAGLCRCNSVERKIYIPLNKAPCVRLINATHQIGCOSSISGDTGVHIVE 77  
 QY 68 VEADLEFLLSSPPSPYAPMIPHLTRNNMLKKEAGPKNISVLLINRTNQMKQFSHE 127  
 Db 78 KEEDLOWLTDGPNPPYVLLLESKHFTDRIMEKLGKRTSRAGLAVSLTKPSPASGFSPS 137  
 QY 128 LNCPCQYSLNSTSETCDASNPAP-NWNPMTGTLHEDFPFIYIYIADLDQVTKLEKCFQ 186  
 Db 138 VQCPNDGFGVYSNGYEPFAHCHREIOWNSLGNLAYEDFSFPIFLEDENETKVIKQCYQ 197  
 QY 187 DFNHNYETHALSLCAVEKFSWMAAVNTEVCVRRTNFIN--NLGSKYCDPLEGKRVNS 244  
 Db 198 DHNLSQNGSAPTPPLCAMQLFSHHAVISTATCWRSSTQSTFSINPEIVCDPLSDYNW 257  
 QY 245 PPTCPSPQSQSTETLETVHNNEKELVTCRLDTMTTFDGVGLGAMDSIMGFAVETHVAYLL 304  
 Db 258 SMLKPIN-----TTGTLKPDORVVAATRLDSRSPFNWVAPGASAVASVFTQLAAAEAL 312

QY 305 KQLLPPQSKDLHNVLVFTENGESYDIYGSQRFYVDMEKLOFPTTESTGTPTPIAFDNIDML 364  
 Db 313 -QKAPDVTTLPRNVMFVFFQGETFDYIGSSRWVYDMEKGF-----PVQLENVDSFV 363  
 QY 365 DIGTLDDISNIKL--H-----ALNGTTILAQOILRLNNAKSPRYGFNINI--QSEMSAHL 416  
 Db 364 ELGQVALRTSLLEWMHTDPVSQKNESVRNQVEDELLATLEKSGA-GVPAVILRRPNQSOPL 422  
 QY 417 PPTSQAQSFLLRRDPNFNALIL---NARPTNKYVHSTYDDADNDVFTYANTSKDFTQLTEVN 473  
 Db 423 PPSLQOFFLEA-RNISGVVLADHSGAFHKKYQSIYDTAENINVSPEWLSPEEDLNFTV 481  
 QY 474 DFKSLNPDSLOMKVRNVSSIVAMALYQITGKEYTGTGVANPLMADEFLYCFLQSDADCL 533  
 Db 482 DTAKALAD-----VATVGLRALYELAGTNEFSDTVQADPQTVTRLLYGLIKANNWSW 533  
 QY 534 FKA-----ASYPGSQTNLPPMYIISVLGGSQSSGYTVRLLYGLLSQIQ-----PDJHRD 584  
 Db 534 FQSILRQDLRSYLGDG-----PLQHYIAV-----SSPTNTTVVQYALANLTGTVVNLTRE 584  
 QY 585 NCTDL-----PLHYFAGFNNIGECRLTTONYSHALSPAFLIDGYDWS 626  
 Db 585 QCQDPKVPSENKDLVEYSWVQGLH-SNETDRLPCVRSTARLARALSPAFLS--OWS 641  
 QY 627 SGMYSTWTESTWSQFSARIFLRPSNVHQVTTLSYGVIVLIIISFCVLIISRSSEVLF 683  
 Db 642 STEYSTWTESTSRWKDIRARIFLIASKELELITLTVGFGILIFSILVITYCINAKADVLF 698

Search completed: March 18, 2004, 12:15:02  
 Job time : 40.1161 secs

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: March 18, 2004, 11:48:08 ; Search time 52.9665 Seconds  
(without alignments)  
3707.446 Million cell updates/sec

Title: US-09-945-258-18  
Perfect score: 3675  
Sequence: 1 MEMRNAASTWILISVGAT.....SSRSEVLFEDLPASNAALFG 695

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_29Jan04:\*  
1: Geneseq1980s:\*  
2: Geneseq1990s:\*  
3: Geneseq2000s:\*  
4: Geneseq2001s:\*  
5: Geneseq2002s:\*  
6: Geneseq2003as:\*  
7: Geneseq2003bs:\*  
8: Geneseq2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3675	100.0	695	3	Aay97551 D. melano
2	3675	100.0	695	5	Aau79387 Fruit fly
3	3361	91.5	716	5	Aao14236 Human pre
4	3006.5	81.8	604	4	Abbs2877 Drosophil
5	793.5	21.6	708	3	Aay97550 Mouse PAM
6	787.5	21.4	708	5	Aau79386 Murine pr
7	787	21.4	690	5	Aae20269 Human lun
8	787	21.4	742	7	Ade79010 Human pro
9	786.5	21.4	708	5	Aao14235 Drosophil
10	786.5	21.4	709	3	Aay97549 Human pro
11	786.5	21.4	709	4	Aau12272 Human PRO
12	786.5	21.4	709	4	Aag63935 Amino aci
13	786.5	21.4	709	4	Aam39096 Human pol
14	786.5	21.4	709	5	Aau79385 Human pre
15	786.5	21.4	709	5	Aau98012 Human ami
16	786.5	21.4	709	6	Abol17716 Novel hum
17	786.5	21.4	709	6	Abu80970 Human PRO
18	786.5	21.4	709	6	Abu66670 Human PRO
19	786.5	21.4	709	6	Abu59751 Novel sec
20	786.5	21.4	709	6	Abu24941 Human sec
21	786.5	21.4	709	6	Abu66946 Human sec
22	786.5	21.4	709	6	Ada5721 Novel hum
23	786.5	21.4	709	6	Ada76152 Human PRO
24	786.5	21.4	709	6	Ada18802 Human PRO
25	786.5	21.4	709	6	Ada61425 Homo sapi

ALIGNMENTS

RESULT 1

AAy97551  
ID AAY97551 standard; protein; 695 AA.  
XX AC AAY97551;  
XX AC  
DT 12-FEB-2001 (first entry)  
XX AC  
DE D. melanogaster PAMP protein sequence.  
XX  
KW PAMP; presenilin associated membrane protein; immunogen;  
KW neurodegenerative disease; Alzheimer's disease; Lewy body variant;  
KW Parkinson's disease-dementia complex; neuropsychiatric disease;  
KW schizophrenia; age-associated memory loss; developmental disorder;  
KW neoplasm; diagnosis.  
XX  
OS Drosophila melanogaster.  
XX  
PN W0200060069-A1.  
XX  
PD 12-OCT-2000.  
XX  
PF 03-APR-2000; 2000WO-CA000354.  
XX  
PR 01-APR-1999; 99US-0127452P.  
XX 30-DEC-1999; 99US-0173826P.  
XX  
PA (UTOR ) UNIV TORONTO GOVERNING COUNCIL.  
XX  
PI St George- Hyslop PH, Frazer PE;  
XX  
DR WPI; 2000-665001/64.  
XX N-PSDB; AAA37887.  
XX

Isolated presenilin associated membrane proteins and nucleic acids encoding them, useful for investigating and diagnosing Alzheimer's disease and other neurodegenerative diseases.

Claim 3; Page 75-77; 79pp; English.

This sequence is a presenilin associated membrane protein (PAMP) of the invention. PAMP polypeptides may be used as an immunogen to generate antibodies that recognise the PAMP polypeptide. The PAMP nucleotide and protein sequence may also be used for diagnosing individuals who are at risk or who have a variety of neurodegenerative diseases (e.g. Alzheimer's disease, Lewy body variant, Parkinson's disease-dementia complex), neuropsychiatric diseases (e.g. schizophrenia, age-associated memory loss), developmental disorders, and neoplasms. These may further

CC be used to deduce the structural organization and topology of PAMP, to  
 CC identify proteins which interact with PAMP either in concert with  
 CC presenilin 1 (PS1) and PS2, or independently, and to create cell-free  
 CC systems, transfected cell lines, and animal models of neurodegenerative  
 CC and other diseases  
 XX  
 SQ Sequence 695 AA;

Query Match 100.0%; Score 3675; DB 3; Length 695;  
 Best Local Similarity 100.0%; Pred. No. 8.7e-312;  
 Matches 695; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEMRLNAASIWLLILSYGATIAQGERTRDKMVEPIGGASCFRLNTHQTGCSSTYSGSV 60  
 Db 1 MEMRLNAASIWLLILSYGATIAQGERTRDKMVEPIGGASCFRLNTHQTGCSSTYSGSV 60

Qy 61 GVLHLINVEADLEFLSSPPSPYAPMIPPHLFRNNLMRLKEAGPKNISVLLINRTNQ 120  
 Db 61 GVLHLINVEADLEFLSSPPSPYAPMIPPHLFRNNLMRLKEAGPKNISVLLINRTNQ 120

Qy 121 MKQFSHELNCNPOYSGLNSTSETCDASNPKNWPMGTGLLHEDFPPIYIADLDQVTK 180  
 Db 121 MKQFSHELNCNPOYSGLNSTSETCDASNPKNWPMGTGLLHEDFPPIYIADLDQVTK 180

Qy 181 LEKCFQDFNNHNYETHALRSCLAVEVKSFMASAVNTEVCMRTNFINNLGSKYCDPLEG 240  
 Db 181 LEKCFQDFNNHNYETHALRSCLAVEVKSFMASAVNTEVCMRTNFINNLGSKYCDPLEG 240

Qy 241 RNVSPPCTPESQSETHLETHVNEKFLVTRCLDTTMTFVGVLGAMSLMGFAVPTH 300  
 Db 241 RNVSPPCTPESQSETHLETHVNEKFLVTRCLDTTMTFVGVLGAMSLMGFAVPTH 300

Qy 301 AYLLKQLLPPOSKOLHNVLFVTENGESVDYIGSORFVYDMKLOPPTSTGTPPIAFDNI 360  
 Db 301 AYLLKQLLPPOSKOLHNVLFVTENGESVDYIGSORFVYDMKLOPPTSTGTPPIAFDNI 360

Qy 361 DFMDIGTDDISNKLHALNGTTTAAQILRLNNYAKSPRYGNLNTQSEMSAHLPTS 420  
 Db 361 DFMDIGTDDISNKLHALNGTTTAAQILRLNNYAKSPRYGNLNTQSEMSAHLPTS 420

Qy 421 AQSLRDPDPFNALINARPNKYHSTYDDADNVDFTYANTSKDFTQLTEVNDPKSLNP 480  
 Db 421 AQSLRDPDPFNALINARPNKYHSTYDDADNVDFTYANTSKDFTQLTEVNDPKSLNP 480

Qy 481 DSLQMKVNVSSIIVAMALYOTITGKVTGKVPANPLMADELYCFLOSADCPLEKASYP 540  
 Db 481 DSLQMKVNVSSIIVAMALYOTITGKVTGKVPANPLMADELYCFLOSADCPLEKASYP 540

Qy 541 GSQLTNLPNMYISVLGSGQSSGYTYRLLGYLLSQLQPDTHRDNCDDLPLHYFAGFNNI 600  
 Db 541 GSQLTNLPNMYISVLGSGQSSGYTYRLLGYLLSQLQPDTHRDNCDDLPLHYFAGFNNI 600

Qy 601 GECLTNTQNSHALSPFLIDYDWSGMVSTWTSTWQSFARIFLRPSNVHQTTLVS 660  
 Db 601 GECLTNTQNSHALSPFLIDYDWSGMVSTWTSTWQSFARIFLRPSNVHQTTLVS 660

Qy 661 GIVLLIISFCLVIYIISRSEVLFDLPASNAALRG 695  
 Db 661 GIVLLIISFCLVIYIISRSEVLFDLPASNAALRG 695

RESULT 2  
 AAU79387  
 ID AAU79387 standard; protein; 695 AA.  
 XX  
 AC AAU79387;  
 XX  
 XX 02-JUL-2002 (first entry)  
 DE Fruit fly presenilin associated membrane protein (PAMP).  
 XX PAMP; Presenilin associated membrane protein; neuropsychiatric disorder;  
 KW neurodevelopmental disorder; schizophrenia; neurodegenerative disorder;  
 XX

Alzheimer's disease; Lewy body variant; mild cognitive impairment;  
 depression; benign senescent forgetfulness; psychosis; schizoaffective;  
 schizotypal; schizophrenia; delusional disorder; personality disorder;  
 schizoid personality disorder; schizotypal personality disorder;  
 paranoid personality disorder; fruit fly.

Drosophila melanogaster.  
 WO200218434-A2.  
 07-MAR-2002.  
 31-AUG-2001; 2001WO-CA001243.  
 01-SEP-2000; 2000US-0229889P.  
 (UTOR) UNIV TORONTO GOVERNING COUNCIL.  
 St George- Hyslop PH, Fraser PE;  
 WPI; 2002-329756/36.  
 N-PSDB; ABK48343.

Use of (gene encoding) presenilin-associated membrane protein as reagent  
 for diagnosing individuals predisposed to or having  
 neuropsychiatric/neurodevelopmental disorder, or as therapeutic target  
 for treating disorder.

Example 1; Fig 1A-B; 69pp; English.

The invention describes the use of presenilin-associated membrane protein (PAMP) as a reagent for diagnosing individuals predisposed to or having neuropsychiatric or neurodevelopmental disorder (NND), or for identifying a compound useful for treating NND, or as a therapeutic target for treatment of NND. The protein is useful for diagnosing individuals predisposed to or having NND e.g. schizophrenia, by detecting mutation in gene encoding PAMP by measuring level of transcriptional activity of the gene, or by measuring PAMP activity which comprises PAMP expression level or activity of a product of a PAMP modified substrate. Transgenic animal models can be screened for compounds that modulate activity of PAMP and the presenilins. The identified compounds, or gene therapy with PAMP, can be used to treat neurodevelopmental disorders, neurodegenerative disorders e.g. Alzheimer's disease and Lewy body variant, and neuropsychiatric disorders such as depression, mild cognitive impairment and benign senescent forgetfulness, schizophrenia and related psychoses e.g. schizoaffective, schizotypal, schizophrenia and delusional disorders and personality disorders such as schizoid personality disorder, schizotypal personality disorder and paranoid personality disorder. This is the amino acid sequence of a fruit fly presenilin associated membrane protein (PAMP)

Sequence 695 AA;

Query Match 100.0%; Score 3675; DB 5; Length 695;  
 Best Local Similarity 100.0%; Pred. No. 8.7e-312;  
 Matches 695; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEMRLNAASIWLLILSYGATIAQGERTRDKMVEPIGGASCFRLNTHQTGCSSTYSGSV 60  
 Db 1 MEMRLNAASIWLLILSYGATIAQGERTRDKMVEPIGGASCFRLNTHQTGCSSTYSGSV 60

Qy 61 GVLHLINVEADLEFLSSPPSPYAPMIPPHLFRNNLMRLKEAGPKNISVLLINRTNQ 120  
 Db 61 GVLHLINVEADLEFLSSPPSPYAPMIPPHLFRNNLMRLKEAGPKNISVLLINRTNQ 120

Qy 121 MKQFSHELNCNPOYSGLNSTSETCDASNPKNWPMGTGLLHEDFPPIYIADLDQVTK 180  
 Db 121 MKQFSHELNCNPOYSGLNSTSETCDASNPKNWPMGTGLLHEDFPPIYIADLDQVTK 180

Qy 181 LEKCFQDFNNHNYETHALRSCLAVEVKSFMASAVNTEVCMRTNFINNLGSKYCDPLEG 240  
 Db 181 LEKCFQDFNNHNYETHALRSCLAVEVKSFMASAVNTEVCMRTNFINNLGSKYCDPLEG 240

CC sequence is a presenilin enhancer protein described in the  
 CC exemplification of the invention  
 XX  
 SQ Sequence 716 AA;

Query Match 91.5%; Score 3361; DB 5; Length 716;  
 Best Local Similarity 91.5%; Pred. No. 2.5e-284;  
 Matches 647; Conservative 9; Mismatches 27; Indels 24; Gaps 3;

QY 1 MEMRLNAASIIWLLISYGATIAQGERTRDKWYEPPIGASCFRRLLNGTHQTGCSSTYSGSV 60  
 DB 22 MEMRLNAASIIWLLISYGATIAQGERTRDKWYEPPIGASCFRRLLNGTHQTGCSSTYSGSV 81  
 QY 61 GVHLINVEADLFLSSPPSPYAPMIPPHLFRNNLMELKEAGPKNISVLLINRTNQ 120  
 DB 82 GVHLINVEADLFLSSPPSPYAPMIPPHLFRNNLMELKEAGPKNISVLLINRTNQ 141  
 QY 121 MKQPSHELNCNPOYSGLNSTSETCDASNPAKWNPMGTGLLHEDFPPIYIADLDQVTK 180  
 DB 142 MKQPSHELNCNPOYSGLNSTSETCDASNPAKWNPMGTGLLHEDFPPIYIADLDQVTK 201  
 QY 181 LKCFODFNHNHETHALRSLCAVEVKSFMASAAVTEVCMRTNFNNLGSKYCDPLEG 240  
 DB 202 LKCFODFNHNHETHALRSLCAVEVKSFMASAAVTEVCMRTNFNNLGSKYCDPLEG 261  
 QY 241 RNVSPPCTPESQOSETTLETVHTNEKFIIVTCRLDTTTFPDGVLGAMDSLMGFVPTH- 299  
 DB 262 RNVSPPCTPESQOSETTLETVHTNEKFIIVTCRLDTTTFPDGVLGAMDSLMGFVPTH- 309  
 QY 300 -----VAYLLKQLLPPOSQKTLTWRQ-----SIRKSS--ISNLSPGHHHVRWRRWSHG 348  
 DB 310 LPYGIWFWLQSVGLYLLKQLLPPOSQKTLTWRQ-----SIRKSS--ISNLSPGHHHVRWRRWSHG 369  
 QY 349 STGTPTPIAFDNIDFMDLIDIGTDDISNKLHALNGTTLAQQLERLNNYAKSPRYGFNLNI 408  
 DB 370 STGTPTPIAFDNIDFMDLIDIGTDDISNKLHALNGTTLAQQLERLNNYAKSPRYGFNLNI 429  
 QY 409 QSEMSAHLPTSAQSFRRDPNPNALILNARPTNKYHSTYDDADNVDFTYANTSKDFTQ 468  
 DB 430 QSEMSAHLPTSAQSFRRDPNPNALILNARPTNKYHSTYDDADNVDFTYANTSKDFTQ 489  
 QY 469 LTVNDFKSLNPDLSQMKVRNYSIVAMALYQITIGKEYTGTGVKVNPLMADEFLYCFLOS 528  
 DB 490 LTVNDFKSLNPDLSQMKVRNYSIVAMALYQITIGKEYTGTGVKVNPLMADEFLYCFLOS 549  
 QY 529 ADCPLFKAASYFGSQLTNLPMPRYISVLGSGQSSGYTYRLLGYLLSOLQPDHNRDNCID 588  
 DB 550 ADCPLFKAASYFGSQLTNLPMPRYISVLGSGQSSGYTYRLLGYLLSOLQPDHNRDNCID 609  
 QY 589 LPLHYFAGFNNIGECRLTTQNTYSHALSPAFIDGVDWSSGMYSTWTSTWTSQFSARIFLR 648  
 DB 610 LPLHYFAGFNNIGECRLTTQNTYSHALSPAFIDGVDWSSGMYSTWTSTWTSQFSARIFLR 669  
 QY 649 PSNVHQTTLTSLVGIIVLLIISFCLVYIISRSRVLFEDLPASNAALFG 695  
 DB 670 PSNVHQTTLTSLVGIIVLLIISFCLVYIISRSRVLFEDLPASNAALFG 716

RESULT 4  
 ABB62877  
 ID ABB62877 standard; protein; 604 AA.  
 XX  
 AC ABB62877;  
 XX  
 DT 26-MAR-2002 (first entry)  
 XX  
 DE Drosophila melanogaster polypeptide SEQ ID NO 15423.  
 XX  
 CC Drosophila; developmental biology; cell signalling; insecticide;  
 CC pharmaceutical.  
 CC Drosophila melanogaster.  
 CC

241 RNVSPPCTPESQOSETTLETVHTNEKFIIVTCRLDTTTFPDGVLGAMDSLMGFVPTHV 300  
 DB 241 RNVSPPCTPESQOSETTLETVHTNEKFIIVTCRLDTTTFPDGVLGAMDSLMGFVPTHV 300  
 QY 301 AYLLKQLLPPOSQKTLTWRQ-----SIRKSS--ISNLSPGHHHVRWRRWSHG 348  
 DB 301 AYLLKQLLPPOSQKTLTWRQ-----SIRKSS--ISNLSPGHHHVRWRRWSHG 369  
 QY 361 GVHLINVEADLFLSSPPSPYAPMIPPHLFRNNLMELKEAGPKNISVLLINRTNQ 420  
 DB 361 GVHLINVEADLFLSSPPSPYAPMIPPHLFRNNLMELKEAGPKNISVLLINRTNQ 480  
 QY 421 MKQPSHELNCNPOYSGLNSTSETCDASNPAKWNPMGTGLLHEDFPPIYIADLDQVTK 480  
 DB 421 MKQPSHELNCNPOYSGLNSTSETCDASNPAKWNPMGTGLLHEDFPPIYIADLDQVTK 540  
 QY 481 LKCFODFNHNHETHALRSLCAVEVKSFMASAAVTEVCMRTNFNNLGSKYCDPLEG 540  
 DB 481 LKCFODFNHNHETHALRSLCAVEVKSFMASAAVTEVCMRTNFNNLGSKYCDPLEG 600  
 QY 541 RNVSPPCTPESQOSETTLETVHTNEKFIIVTCRLDTTTFPDGVLGAMDSLMGFVPTH- 600  
 DB 541 RNVSPPCTPESQOSETTLETVHTNEKFIIVTCRLDTTTFPDGVLGAMDSLMGFVPTH- 660  
 QY 601 -----VAYLLKQLLPPOSQKTLTWRQ-----SIRKSS--ISNLSPGHHHVRWRRWSHG 660  
 DB 601 -----VAYLLKQLLPPOSQKTLTWRQ-----SIRKSS--ISNLSPGHHHVRWRRWSHG 716  
 QY 661 GVHLINVEADLFLSSPPSPYAPMIPPHLFRNNLMELKEAGPKNISVLLINRTNQ 716  
 DB 661 GVHLINVEADLFLSSPPSPYAPMIPPHLFRNNLMELKEAGPKNISVLLINRTNQ 716

RESULT 3  
 AAO14236  
 ID AAO14236 standard; protein; 716 AA.  
 XX  
 AC AAO14236;  
 XX  
 DT 10-MAY-2002 (first entry)  
 XX  
 DE Human presenilin enhancer protein Aph-4 SEQ ID NO: 15.  
 XX  
 CC Human; fruit fly; mouse; rat; cow; presenilin enhancer protein; pen;  
 CC Alzheimer's disease; pen-1; pen-1B; pen-2; Aph-2; amyloid beta.  
 CC  
 CC Homo sapiens.  
 CC  
 CC WO200185912-A2.  
 CC  
 CC 15-NOV-2001.  
 CC  
 CC 03-MAY-2001; 2001WO-US014648.  
 CC  
 CC 05-MAY-2000; 2000US-00568942.  
 CC  
 CC (EXEL-) EXELIXIS INC.  
 CC  
 CC Curtis DT, Francis GR, Ellis MC, Ruddy DA, Nicoll SM, McGrath GJ;  
 CC WPI; 2002-062245/08.  
 CC  
 CC Presenilin enhancer proteins and polynucleotides useful for modulating  
 CC presenilin function and screening for an agent that modulates the  
 CC interaction of the protein to a binding target.  
 CC  
 CC Disclosure; Page 55-57; 78pp; English.  
 CC  
 CC The present invention relates to a method of detecting compounds capable  
 CC of altering the interaction between a presenilin enhancer protein (such  
 CC as pen-1, pen-1B, pen-2 and Aph-2) and presenilin. The inhibition of  
 CC presenilin activity causes the production of amyloid beta to be reduced  
 CC and thus be used in the treatment of Alzheimer's disease. The present



Db 17 LLLSFSVVLGLCGGNSVERKIYIPLNKTAPCVLLNATHQIGQSSISGDTGVHVE 76  
Qy 68 VEADLEFLLSSPPSPYAPMIPPHLFRNNLMRLKEAGPKNISVLLNTRNQMKQFSHE 127  
Db 77 KEEDLKWVLDGPNPPVWLVGKLFTRDVMKLGKTSRIAGLAVTLAKPNSTSSFPS 136  
Qy 128 LNCNPQYSLNSTSETCDASNPKN-WNPWGTGGLHEDFPPIYIADLDQVTKLEKCFQ 186  
Db 137 VQCPNDGFIYSNGYGEFAHCKKTLWNLGNGLAYEDFSFIFLLEDENETKVIKQCYQ 196  
Qy 187 DFNHNYETHALSLCAVEVKSFMASAVNTEVCMRTNFIN---NLGGSKYCDPLEGRNV 243  
Db 197 DNLGONGSAPFLCAMQLFSMHAVISTATCMRR-SFIQSTFSINPEIVCDPLSDYNV 255  
Qy 244 SPPCTPESQOSETTLETVHTNEKFLVTCRLDTTTFMDGVLGMDSLMGFAVFTHVAYL 303  
Db 256 WSMKLPIN---TSVGLPEPDRVVVAATRLDSRFFWNVAPGASAVASFTQLAAEA 310  
Qy 304 LKQLLPQSKDLHNLVFTFNGESYDIYIGSORFVYDMKLOPPTSTGTPTPIAFDNIDFM 363  
Db 311 LHK-APDVTTLSRNVMFVFGQETFDYIGSRWYDMENGKE-----PVRLENIDSF 361  
Qy 364 LDIG-----TLDDISNKLHALNGTTLAQOILRLNNYAKS-----PRYGFNLNIQSEMS 413  
Db 362 VELGQVALRTSLDLWMHTDPMQKNSVKNQVEDLLATLEKSGAGVPEVLLRLAQSOA- 420  
Qy 414 AHLPTSAQSFRLRDPNFENALIL---NARPTNKYHSTYDDADNVDFTYANTSKDTOLT 470  
Db 421 --LPPSSILORFLA-RNLSGVVLADHSGSFNRYQSIYDAENINVTYPWQSPEDLN 477  
Qy 471 EVNDFKSLNPSLQKVNSSIVAMALYQITGKYTGKTVANPLMADEFLYCFLOSAD 530  
Db 478 FVTD-----TAKALANVATLALRYELAGGTNFSSTIQADPQTVTRLLYGLVKAN 529  
Qy 531 CPLFKA-----ASVPSQLNLPMPRIYISVLGQSSGTYRLLGVLLSQL---QPD 581  
Db 530 NSWFQSLKHDLRSY---LDDRPLQHYIAV-----SSPTNTTYVQVYALANLTKATNL 580  
Qy 582 HRDNCITD---LP-----LHVPAGE-----NNIGECRLTTQNYSHALSPFLIDGYD 624  
Db 581 TREQCQPSKVPNBSKOLYYSWVQGPWNSNRTLPQCVSTVRLARALSPAFELS--Q 638  
Qy 625 WSSQMYSTWTSTWSQFSARIFLRPSNVHVTTLISVGIWVLIISFCVLIISRSSEVLF 683  
Db 639 WSSPEYSTWABSRWKDQARIFLITASKKLEFILLVGSFILLFVLYCINAKADVL 697

RESULT 6  
AAU79386  
XX AAU79386 standard; protein; 708 AA.  
AC AAU79386;  
XX  
DT 02-JUL-2002 (first entry)  
XX  
DE Murine presenilin associated membrane protein (PAMP).  
XX  
KW PAMP; Presenilin associated membrane protein; neuropsychiatric disorder;  
KW neurodevelopmental disorder; schizophrenia; neurodegenerative disorder;  
KW Alzheimer's disease; Lewy body variant; mild cognitive impairment;  
KW depression; benign senescent forgetfulness; psychosis; schizoaffective;  
KW schizotypal; schizophrenia; delusional disorder; personality disorder;  
KW schizoid personality disorder; schizotypal personality disorder;  
KW paranooid personality disorder; mouse.  
XX  
OS Mus sp.  
XX  
FN W0200218434-A2.  
XX  
PD 07-MAR-2002.  
XX  
PF 31-AUG-2001; 2001WO-CA001243.  
XX

PR 01-SEP-2000; 2000US-02298899P.  
XX (UTOR ) UNIV TORONTO GOVERNING COUNCIL.  
PA St George- Hyslop PH, Fraser PE;  
PI  
XX WPI; 2002-329756/36.  
DR N-PSDB; ASK48342.  
XX  
PT Use of (gene encoding) presenilin-associated membrane protein as reagent  
PT for diagnosing individuals predisposed to or having  
PT neuropsychiatric/neurodevelopmental disorder, or as therapeutic target  
PT for treating disorder.  
XX  
PS Example 1; Fig 1A-B; 69pp; English.  
XX  
CC The invention describes the use of presenilin-associated membrane protein  
CC (PAMP) as a reagent for diagnosing individuals predisposed to or having  
CC neuropsychiatric or neurodevelopmental disorder (NND), or for identifying  
CC a compound useful for treating NND, or as a therapeutic target for  
CC treatment of NND. The protein is useful for diagnosing individuals  
CC predisposed to or having NND e.g. schizophrenia, by detecting mutation in  
CC the gene encoding PAMP by measuring level of transcriptional activity of the  
CC gene, or by measuring PAMP activity which comprises PAMP expression level  
CC or activity of a product of a PAMP modified substrate. transgenic animal  
CC models can be screened for compounds that modulate activity of PAMP and  
CC the presenilins. The identified compounds, or gene therapy with PAMP, can  
CC be used to treat neurodevelopmental disorders, neurodegenerative  
CC disorders e.g. Alzheimer's disease and Lewy body variant, and  
CC neuropsychiatric disorders such as depression, mild cognitive impairment  
CC and benign senescent forgetfulness, schizophrenia and related psychoses  
CC e.g. schizoaffective, schizotypal, schizophrenia and delusional  
CC disorders and personality disorders such as schizoid personality  
CC disorder, schizotypal personality disorder and paranooid personality  
CC disorder. This is the amino acid sequence of a murine presenilin  
CC associated membrane protein (PAMP)  
XX  
SQ Sequence 708 AA;

Query Match 21.4%; Score 787.5; DB 5; Length 708;  
Best Local Similarity 30.6%; Pred. No. 2.2e-59;  
Matches 220; Conservative 123; Mismatches 231; Indels 85; Gaps 22;  
Qy 12 LLLISYCATTA---QGERTRDKMYEPDG-GASCFRLNGTHQTCSSYSGSVLMLIN 67  
Db 17 LLLSFSVVLGLCGGNSVERKIYIPLNKTAPCVLLNATHQIGQSSISGDTGVHVE 76  
Qy 68 VEADLEFLLSSPPSPYAPMIPPHLFRNNLMRLKEAGPKNISVLLNTRNQMKQFSHE 127  
Db 77 KEEDLKWVLDGPNPPVWLVGKLFTRDVMKLGKTSRIAGLAVTLAKPNSTSSFPS 136  
Qy 128 LNCNPQYSLNSTSETCDASNPKN-WNPWGTGGLHEDFPPIYIADLDQVTKLEKCFQ 186  
Db 137 VQCPNDGFIYSNGYGEFAHCKKTLWNLGNGLAYEDFSFIFLLEDENETKVIKQCYQ 196  
Qy 187 DFNHNYETHALSLCAVEVKSFMASAVNTEVCMRTNFIN---NLGGSKYCDPLEGRNV 243  
Db 197 DNLGONGSAPFLCAMQLFSMHAVISTATCMRR-SFIQSTFSINPEIVCDPLSDYNV 255  
Qy 244 SPPCTPESQOSETTLETVHTNEKFLVTCRLDTTTFMDGVLGMDSLMGFAVFTHVAYL 303  
Db 256 WSMKLPIN---TSVGLPEPDRVVVAATRLDSRFFWNVAPGASAVASFTQLAAEA 310  
Qy 304 LKQLLPQSKDLHNLVFTFNGESYDIYIGSORFVYDMKLOPPTSTGTPTPIAFDNIDFM 363  
Db 311 LHK-APDVTTLSRNVMFVFGQETFDYIGSRWYDMENGKE-----PVRLENIDSF 361  
Qy 364 LDIG-----TLDDISNKLHALNGTTLAQOILRLNNYAKS-----PRYGFNLNIQSEMS 413  
Db 362 VELGQVALRTSLDLWMHTDPMQKNSVKNQVEDLLATLEKSGAGVPEVLLRLAQSOA- 420  
Qy 414 AHLPTSAQSFRLRDPNFENALIL---NARPTNKYHSTYDDADNVDFTYANTSKDTOLT 470



Db 421 --LPSSLQFLRA-RNISGVVLADHSGFHNRYQSIYDTAENINVTYPQWSPEDLN 477  
Qy 471 EYNDKSLNPDLSLQMKVRNVSSIVAMALYQTTIGKEYTGKVNPLWADDFLYCFLQSD 530  
Db 478 FVTD-----TAKALANAVVLARALVELAGTNFSSIQADPQTVTRLLYGFLVRAN 529  
Qy 531 CPLEKA-----ASYPGSOLTNLPPMYRYSVLGSGQESSGYTYRLIGYLLSQT---QPI 581  
Db 530 NSWFQSLKHLDRSY---LDDRPLQHYIAV-----SSPTNTYVYVQYALANLTGKATNL 580  
Qy 582 HRDNCDD---LP-----LHYFAGF-----NNIGECRLTQNYSHALSPAFIDGYD 624  
Db 581 TREQCQDPKPKVNESKDLXEYWGQPMNSNRTERLPQCVRSTVRLARALSAPFELS--Q 638  
Qy 625 WSGMYSTWTESTWQSFARIELRPSNVHQTLSVGIWVLIISFCLVYIISRSSEVL 683  
Db 639 WSTEYSTWAEERKDIQARIFLIASKDEFTILVGFSTLVSFLIVYICINAKADVUF 697

RESULT 7  
ID AAE20269 standard; protein; 690 AA.  
AC AAE20269;  
XX  
DT 18-JUN-2002 (first entry)  
XX  
DE Human lung specific gene (LSG) protein #7.  
KW Human; lung specific gene; LSG; lung embryonic development; cytostatic;  
KW lung cancer; vaccine; gene therapy; non-cancerous lung disease; tumour.  
OS Homo sapiens.

Key Location/Qualifiers  
FT Region 117..127  
FT /note= "Antigenic epitope"  
FT Region 130..139  
FT /note= "Antigenic epitope"  
FT Region 165..189  
FT /note= "Antigenic epitope"  
FT Region 395..408  
FT /note= "Antigenic epitope"  
FT Region 563..586  
FT /note= "Antigenic epitope"

WO200208278-A2.  
31-JAN-2002.  
20-JUL-2001; 2001WO-US022949.  
21-JUL-2000; 2000US-0219834P.  
(DIAD-) DIADEXUS INC.  
Macina RA, Nair M, Chen S;  
WPI; 2002-268964/31.  
Novel lung specific gene useful for identifying, diagnosing, monitoring,  
staging, imaging and treating lung cancer and non-cancerous disease  
states in lung, for gene therapy, and for identifying lung tissue.

Claim 2; Page 166-169; 197pp; English.  
The present invention relates to lung specific genes (LSG) and their  
corresponding polypeptides. LSG is useful for identifying, diagnosing,  
monitoring, staging, imaging and treating lung cancer and non-cancerous  
disease states in lung, identifying lung tissue, monitoring and modifying  
lung embryonic development and differentiation, in gene therapy, as  
hybridisation probes, to detect LSG mRNA as a marker for lung cancer, as  
research reagents and materials for discovery of treatments and

CC diagnostics to human disease, to detect complementary polynucleotides,  
CC and for chromosome identification. An antibody which binds LSG is useful  
CC to detect or image localisation of LSG in a patient for detecting or  
CC diagnosing a disease or condition, for preventing the onset and treatment  
CC of lung cancer, to isolate or to identify clones expressing LSG  
CC polypeptides, to purify LSG polypeptides, and to target tumours  
CC expressing LSG. The present sequence is human LSG protein  
XX  
SQ Sequence 690 AA;

Query Match 21.4%; Score 787; DB 5; Length 690;  
Best Local Similarity 30.2%; Pred. No. 2,3e-59;  
Matches 216; Conservative 129; Mismatches 292; Indels 78; Gaps 20;

Qy 11 WLLILSYGATTAAQGRTRDKWYEPIG-CASFRLNGTHGTGCSSTYSGSVGLHLINVE 69  
Db 1 FTLTIFRSGICRGNSVERKIYIPLNKTAPOCVLLNATHQIGCQSSISGDTGVHVEKE 60  
Qy 70 ADLEFLSSPPSPYAPMIPPLETRNNLMELKEAGPKNISVLLINRTNQKQFSEHNL 129  
Db 61 EDLQWLTLDGPNPPYMWLLESKHFRDLMEKLGRTSRIAGLAVSLTKPSPASGFSFVQ 120  
Qy 130 CPNOYSGLNSTSETCDASNPAK-NWNPWGTGLLHEDFPFIYIADLDQVTKLEKCFODF 188  
Db 121 CPNDGFGVYSNSYGPEFAHCHREIQWNSLGNGLAYEDSFPIFLEDENETKVIKQCYQDH 180  
Qy 189 NNHYETHALRSLCAVEKSPMSAAVTEVCWRTNFIN--NLGSKYCDPLEGRNVSP 246  
Db 181 NLSQNGSAPTPLCAMOLFSSHMAVISTATCMRRESSIQSTFSINPEIVCDPLSDYVWMS 240  
Qy 247 CTPSQSQSETTLEVTHTNEKFIYTCRLDTTMDGVLGMDSLMGFAVTHVAYLLKQ 306  
Db 241 LKPIN-----TTGTLEKDDRVVVAATLDSRFFNVPAGSAVAFVTVQALAAEAL-Q 294  
Qy 307 LLPPQSKDLHNLFVTFNGESYDYGSRFYDMKELQFPTSTGTPTPIADNDTDFMLDI 366  
Db 295 KAPDVTTLPRNVMPVFFQGETFDYIGSRMYDMEKGF-----PVQLENVDSFVEL 346  
Qy 367 GTLDDISNKL--H-----ALNGTTAAQILRLNNYAKSPRYGNLMI--QSEMSAHLPP 418  
Db 347 QVALRTSLLELMWHTDPVSQKNESVRNQVEDLLATLEKSGA-GVPAVILRRPNQSQPLPP 405  
Qy 419 TSAQSFLRRDPNFNALIL--NARPTNKYHSTYDDADNDVFTYANTSKOFTQLTENVDF 475  
Db 406 SSLQRFIRA-RNISGVVLADHSGAFHNKYQSIYDTAENINVSPEWLSPEEDLNFVTD 464  
Qy 476 KSLNPDQLMKVRNVSSIVAMALYQTTIGKEYTGKVNPLWADDFLYCFLQSDCPLFK 535  
Db 465 AKALAD-----VATVLGRALVELAGTNFSDTVQADPQTVTRLLYGFLKANNSWFQ 516  
Qy 536 A-----ASYPGSOLTNLPPMYRYSVLGSGQESSGYTYRLIGYLLSQT---PDIHRDNC 586  
Db 517 SILRQDLRSYLGSG---PLQHYIAV-----SSPTNTYVYVQYALANLTGVVNLTREQC 567  
Qy 587 TDL-----PLHYFAGFNNIGECRLTQNYSHALSPAFIDGYDWSSG 628  
Db 568 QDPSKVPSEKNDLYEYVWQGPLH-SNETDRLPRCVSTARLARALSPAFELS--QWSST 624  
Qy 629 MYSTWTESTWQSFARIELRPSNVHQTLSVGIWVLIISFCLVYIISRSSEVL 683  
Db 625 EYSTWTESTRWDIRARIFLIASKLELITLVGFGILITSLIVTYCINAKADVUF 679

RESULT 8  
ADE79010  
ID ADE79010 standard; protein; 742 AA.  
XX  
AC ADE79010;  
XX  
DT 29-JAN-2004 (first entry)  
XX  
DE Human protein modification and maintenance molecule (PMMW)-48.  
XX



AAO14235 standard; protein; 708 AA.  
AAO14235;  
10-MAY-2002 (first entry)  
Drosophila presenilin enhancer protein Aph-3 SEQ ID NO: 14.  
Human: fruit fly; mouse; rat; cow; presenilin enhancer protein; pen;  
Alzheimer's disease; pen-1; pen-1B; pen-2; Aph-2; amyloid beta.  
Drosophila melanogaster.  
WO200185912-A2.  
15-NOV-2001.  
03-MAY-2001; 2001WO-US014648.  
05-MAY-2000; 2000US-00568942.  
(EXEL-) EXELIXIS INC.  
Curtis DT, Francis GR, Ellis MC, Ruddy DA, Nicoll SM, McGrath GJ;  
WPI; 2002-062245/08.  
Presenilin enhancer proteins and polynucleotides useful for modulating  
presenilin function and screening for an agent that modulates the  
interaction of the protein to a binding target.  
Disclosure; Page 52-54; 78pp; English.  
The present invention relates to a method of detecting compounds capable  
of altering the interaction between a presenilin enhancer protein (such  
as Pen-1, pen-1B, pen-2 and Aph-2) and presenilin. The inhibition of  
presenilin activity causes the production of amyloid beta to be reduced  
and thus be used in the treatment of Alzheimer's disease. The present  
sequence is a presenilin enhancer protein described in the  
exemplification of the invention  
Sequence 708 AA;  
Query Match 21.4%; Score 786.5; DB 5; Length 708;  
Best Local Similarity 30.5%; Pred. No. 2.7e-59;  
Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;  
12 LLLLSYGATIA---QGERTRDKMVEPIG-GASCPRRLNGTHOTGCSSTVSGVGVHLIN 67  
17 LLLLSFCVLLAGLCRGNSVERKIYIPLANKTAPCVRLNATHOIGCQSSISGDTGVHVVE 76  
68 VEADLEFLISSPPSPYAPMIPHLFTRNNMLKLEAGPKNSVLLINRNTQMKSHE 127  
77 KEEDLQWLTDGPNPPYVLLSKETFDRLMKLKGRTSRAGLAVSLTKPSAGSFGPS 136  
128 LNCNPOYGLNSTSTCDASNPAPK-NWNPWGTGLLHEDFPPIYIADLDQVTKLEKCFQ 186  
137 VQCPNDGFGVYSNSYGPFAHCKREIQWNSLGNGLAYEDFSPFIILEDENETKVIKQCVQ 196  
187 DENNHNETHALRSICAVEKSFMAAANTVECMRTFIN--NUGGSKYCDPLGRNVS 244  
197 DNLNQSAGAPFPFLCAMQLFSHMAVISTATCMRRSSIQSTFSINPEIVCDPLSDYNVW 256  
245 PPTPESQSETTLETVHNEKFIIVTCRLDTTMTDFDGVGLGAMDSLMGFAVTHVAIL 304  
257 SMLKPIN---TTGLKPDPRDVRVVAATLDSRSFVWVAPQASAVAFVTLAAEAL 311  
305 KOLLPPQSKDLHNLVFTFNGESDYIGSQRFVYDMEKIQFTSTGTPTPIAFDNIDFML 364  
312 -QKAPDVTTLPRNVFVFQGTEDYIGSSRWVYDMEKGF-----PVQLENVDVSV 362  
365 DIGTLDDISNKL--H-----ALNGTTLAQOILERNVAKSPRYGFNINI--QSEMSAHL 416

Db 363 ELGQVALRTSLMWHMHTDPVSKNESVRNQVEDLLATLEKSGA-GVPAVILRRPMSQPL 421  
QY 417 PPTSAQSFLRRDPNFNALIL---NARPTNKYYHSTYDDADNVDFTYANTSKDFTOLTENV 473  
Db 422 PPSLQRLFLRA-RNISGVVLADHSGAFHNKYYQSYDTAENINVSYPEWLSPEEDLNFVT 480  
QY 474 DFKSINPDSLQMKVRNVSIVAMALYQITKEYTGTQKVANPLMADEFYLCFQSGADCLP 533  
Db 481 DTAKALAD-----VATLGRALYELAGGTNFDSTVQADPQTIVTRLLYGLFIKANNWS 532  
QY 534 FKA-----ASYPGSOLTNLPMRYISVLGGSQSSGYTYRLLGYLLSLQ---PDHHD 584  
Db 533 FQSILRQDLRSYLDG---PLQHIIV-----SPTNTTYVQVQALANLTQTVVNLTR 583  
QY 585 NCTDL-----PLHYFAGFNIGECRLTTONYSHALSPAFILDGYS 626  
Db 584 QCQDPSKVPSENKOLYYSWQPLH-SNETDRLPCVRSTARLARALSPAFELS-QWS 640  
QY 627 SCMYSTWTESTWSQFSARIFLPPSNVHOVTLSGIVVLIISFCLVYIISRSEVLFP 683  
Db 641 STEYSTWTESTRWKOIRARIFLIASKLEBLITLVGFGILFSLIVTYCINAKADVL 697  
RESULT 10  
AA97549  
ID AAY97549 standard; protein; 709 AA.  
XX AAY97549;  
AC AAY97549;  
XX 12-FEB-2001 (first entry)  
XX Human PAMP protein sequence.  
XX PAMP; human; presenilin associated membrane protein; immunogen;  
XX neurodegenerative disease; Alzheimer's disease; Lewy body variant;  
XX Parkinson's disease-dementia complex; neuropsychiatric disease;  
XX schizophrenia; age-associated memory loss; developmental disorder;  
XX neoplasm; diagnosis.  
XX Homo sapiens.  
XX WO2000060069-A1.  
XX 12-OCT-2000.  
XX 03-APR-2000; 2000WO-CA000354.  
XX 01-APR-1999; 99US-0127452P.  
XX 30-DEC-1999; 99US-0173826P.  
XX (UTOR ) UNIV TORONTO GOVERNING COUNCIL.  
XX St George- Hyslop PH, Fraser PE;  
XX WPI; 2000-665001/64.  
XX N-PSDB; AAA37885.  
XX Isolated presenilin associated membrane proteins and nucleic acids  
XX encoding them, useful for investigating and diagnosing Alzheimer's  
XX disease and other neurodegenerative diseases.  
XX Claim 2; Page 68-70; 79pp; English.  
XX This sequence is the human presenilin associated membrane protein (PAMP)  
XX of the invention. PAMP polypeptides may be used as an immunogen to  
XX generate antibodies that recognise the PAMP polypeptide. The PAMP  
XX nucleotide and protein sequence may also be used for diagnosing  
XX individuals who are at risk or who have a variety of neurodegenerative  
XX diseases (e.g. Alzheimer's disease, Lewy body variant, Parkinson's  
XX disease-dementia complex), neuropsychiatric diseases (e.g. schizophrenia,  
XX age-associated memory loss), developmental disorders, and neoplasms.  
XX These may further be used to deduce the structural organisation and  
XX topology of PAMP, to identify proteins which interact with PAMP either in





Db 364 ELGQVALKTSLELWHTDPVSKNESVRNQVEDLLATLEKSGA-GVPVILRRPNQSQPL 422  
 QY 417 PPTSAQSFRLRDPENALIL--NARPTNKYHSTYDDADNVDFTYANTSKDFTQLTENV 473  
 Db 423 PPSLQRFRLA-RNIGSVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFTV 481  
 QY 474 DFKSLNPSLQMKVRNVSIVAMALYQITGKEYTGTQVAPLMADEFLYCLQASDCPL 533  
 Db 482 DTAKALAD-----VATVIGRALYELAGTNSDFTVQDPQVTRLLYGLFKANNWS 533  
 QY 534 FKA-----ASYPGSQLTNLPPMYIISVLGGSQESSGYTYRLLGYLLSOLQ---PDHHRD 584  
 Db 534 FQSIQLQDLRSYLGDG---PLQHYIAV-----SSPTNTTYVQYALANLTGTVNLTRE 584  
 QY 585 NCTDL-----PLHYFAGFNNGECRLTTQNYSHALSPAFIDGYDWS 626  
 Db 585 QCQDPSPKVPSENKDYEYSWVQGPLH-SNETDRLPRCVRSTARLARALSPAFELS--QWS 641  
 QY 627 SGMYSTWTSTWSQFSARIFLRPSNVHQTLSVGIWLLISFCLVYIISRSSEVL 683  
 Db 642 STEYSTWTSTSRWDIRARIFLRASKELELITLTGFGILIFSLIVTYCINAKADVL 698

RESULT 13

AAM39096  
 ID AAM39096 standard; protein; 709 AA.

AC AAM39096;

DT 22-OCT-2001 (first entry)

DE Human polypeptide SEQ ID NO 2241.

KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;  
 peripheral nervous system; neuropathy; central nervous system; CNS;  
 Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;  
 amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;  
 chemokinetic; thrombolytic; drug screening; arthritis; inflammation;  
 leukaemia.

OS Homo sapiens.

XX WO200153312-A1.

XX 26-JUL-2001.

XX 26-DEC-2000; 2000WO-US034263.

XX 23-DEC-1999; 99US-00471275.

XX 21-JAN-2000; 2000US-00488725.

XX 25-APR-2000; 2000US-00552317.

XX 20-JUN-2000; 2000US-00598042.

XX 19-JUL-2000; 2000US-00620312.

XX 03-AUG-2000; 2000US-00653450.

XX 14-SEP-2000; 2000US-00662191.

XX 19-OCT-2000; 2000US-00693036.

XX 29-NOV-2000; 2000US-00727344.

XX (HYSE-) HYSEQ INC.

XX Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;

XX Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J, Zhao QA;

XX Zhou P, Goodrich R, Drmanac RT;

XX WPI; 2001-442253/47.

XX N-PSDB; AA158252.

The invention relates to human nucleic acids (AA157798-AA161369) and the encoded polypeptides (AAM38642-AA42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression, Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemias and C.N.S disorders. Note: The sequence data for this patent did not form part of the printed specification

Sequence 709 AA;

Query Match 21.4%; Score 786.5; DB 4; Length 709;

Best Local Similarity 30.5%; Pred. No. 2.7e-59;

Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

QY 12 LLILSYGATIA---QGERTRDKMYEPIG-GASCPRLNGTHQTGCSSTYSSGVGLHLIN 67  
 Db 18 LRLSFCVLLAGLCRGNVERKIYIPLNKTAFCVRLNATHQICQSSISGDTGVHIVE 77  
 QY 68 VEADLEFLSSPPSPYAPMIPPLFTRNNLMRLKEAGPKNISVLLINRTNQKFSHE 127  
 Db 78 KEEDLQWLVTGDPNPPYMWLLESKHFTDLMEKLGKRTSRIAGLAVSLTKPSPASGSPS 137  
 QY 128 LNCPNQYSLNSTSETCDASNPAP-KWNPNGTGLLHEDFPPIYIADLQVTKLEKCPQ 186  
 Db 138 VQCPNDGFGVYSNSYGEPAHCHREIQWNSLGNLAYEDFSFPLELDENETKVIKOCYQ 197  
 QY 187 DFNHNYETHALRSICAVEVKSFMASAVNTEVCMRRTNFIN--NLGSKYCDPLEGRNVS 244  
 Db 198 DHNLSQNGSAPTPLCAWOLFSEHMAVISTATCMRRSSIOSTFSINDEIVCDPLSDYNVW 257  
 QY 245 PPTPSQSQSETTLETVHTNEKFIPLVTCRLDTTMTFDGVLGAMDSLMGFAVETHAYLL 304  
 Db 258 SMLKPIN-----TTGTLKPDPRVVAATRLDSRSFFWNVAPGAEASAVSFVTLAAAEAL 312  
 QY 305 KOLLPPQSKDLHNVLFVTNGESYDYIGSORFYVDMKLOPPTTESTGTPPIAFDNI 364  
 Db 313 -QKAPDVITLPRNVMFVFFQGETFDYIGSRMYDMKGF-----EVQLENVDSFV 363  
 QY 365 DIGTLDDISNKL--H-----ALNGTTLAQQLERLNNYAKSPRYGFNLNI--QSEMSAHL 416  
 Db 364 ELGQVALRTSLELWMHTDPVSQKNESVRNQVEDLLATLEKSGA-GVPVILRRPNQSQPL 422  
 QY 417 PPTSAQSFRLRDPENALIL---NARPTNKYHSTYDDADNVDFTYANTSKDFTQLTENV 473  
 Db 423 PPSLQRFRLA-RNIGSVLADHSGAFHNKYQSIYDTAENINVSYPEWLSPEEDLNFTV 481  
 QY 474 DFKSLNPSLQMKVRNVSIVAMALYQITGKEYTGTQVAPLMADEFLYCLQASDCPL 533  
 Db 482 DTAKALAD-----VATVIGRALYELAGTNSDFTVQDPQVTRLLYGLFKANNWS 533  
 QY 534 FKA-----ASYPGSQLTNLPPMYIISVLGGSQESSGYTYRLLGYLLSOLQ---PDHHRD 584  
 Db 534 FQSIQLQDLRSYLGDG---PLQHYIAV-----SSPTNTTYVQYALANLTGTVNLTRE 584  
 QY 585 NCTDL-----PLHYFAGFNNGECRLTTQNYSHALSPAFIDGYDWS 626  
 Db 585 QCQDPSPKVPSENKDYEYSWVQGPLH-SNETDRLPRCVRSTARLARALSPAFELS--QWS 641  
 QY 627 SGMYSTWTSTWSQFSARIFLRPSNVHQTLSVGIWLLISFCLVYIISRSSEVL 683  
 Db 642 STEYSTWTSTSRWDIRARIFLRASKELELITLTGFGILIFSLIVTYCINAKADVL 698

RESULT 14

AAU79385

Novel nucleic acids and polypeptides, useful for treating disorders such as central nervous system injuries.

Example 4; SEQ ID NO 2241; 10078pp; English.





(INPH-) INPHARMATICA LTD.

Fagan RJ, Overington JP, Swindells MB, Weir M;

WPI; 2002-463232/49.

DR N-PSDB; ABK52302.

Nicatin protein identified as an aminopeptidase, useful for diagnosis, prevention and treatment of a disease e.g. inflammation, cancer, or cardiovascular disease.

Disclosure; Page 47; 68pp; English.

The invention relates to a polypeptide consisting of the aminopeptidase domain (I) of the Nicatin polypeptide. Nicatin is included in the presentin/B-APP (amyloid precursor protein) complex and is involved in Alzheimer's disease. Also included are an aminopeptidase inhibitor, for use in the treatment and diagnosis of Alzheimer's disease, which effectively inhibits the aminopeptidase activity of the Nicatin polypeptide; a purified nucleic acid molecule which encodes (I); a vector comprising the nucleic acid; a host cell transformed with the vector; identifying (M1) a candidate ligand for the treatment of Alzheimer's disease, by testing the ability of an aminopeptidase inhibitor to bind to the Nicatin polypeptide or to (I), and selecting as a candidate agent, an aminopeptidase inhibitor that effectively inhibits the biological activity of the polypeptide; a vaccine composition comprising (I) or its encoding nucleic acid; a transgenic or knockout non-human animal that has been transformed to express a higher, lower or absent level of (I); and diagnosing (M2) the susceptibility of a patient to Alzheimer's disease, by examining the Nicatin polypeptide or gene sequence in the patient or in the tissue from the patient and diagnosing as susceptible those patients in which a mutation is contained in a region of the sequence that is responsible for aminopeptidase activity in the full length protein. A pharmaceutical based on the inhibitor, peptide, nucleic acid, vector or antibody is useful in therapy or diagnosis of inflammation, cancer, or cardiovascular disease. (M1) is useful for identifying a ligand which prevents the activity of the polypeptide as an aminopeptidase, and inhibits the interaction of the aminopeptidase domain of Nicatin with a naturally-occurring peptide, such as the full length beta amyloid precursor protein (B-APP), the beta-secretase cleaved version of the B-APP, the alpha-secretase cleaved version of B-APP, presentin 1, presentin 2, or a member of the Notch protein family. The present sequence represents Nicatin

Sequence 709 AA;

Query Match 21.4%; Score 786.5; DB 5; Length 709;

Best Local Similarity 30.5%; Pred. No. 2.7e-59;

Matches 219; Conservative 127; Mismatches 290; Indels 81; Gaps 21;

12 LLILSYGATIA---QGERTRDKMYEPIG-GASCFRLRLNGTHQTGCSSTYSVGVLLHLIN 67  
18 LRLLSFCVLLAGLRGNSVERKIYIPLNKTAPCVLLNATHQIGQSSISDGTGVHVE 77  
68 VEADLEFLSSPPSPYPAPMIPHLFTRNLMLKEAGPKNISVLLINRTNMQKQFSHE 127  
78 KEEDLQWLVTGDPNPPYVWLESKHFTEDLMEKLGKRTSRTAGLAVSLTKPSPASGFS 137  
128 LNCFNQYSGLNSTSETCDASNPAAK-NWNPCTGLHDEFPPIIYIADLDQVTKLEKCFQ 186  
138 VQCPNDGFGVYNSYGEFAHCREIQWNSLGNGLAYEDFSPFLLEDENETKVIKQCYQ 197  
187 DFNHNYTHALRSCLAVEKFSMAAVNTEVCMRTNFIN--NLGSKYCDPLEGRNVS 244  
198 DHNLSQNGSAPTPLCAQLFSLHMAVISTATCMRRSSIQTSPINPEIVCDPLSDYNW 257  
245 PCTPESQSQSETTLTETHNEKFLVTCRLDTTTFDGVGLGAMDSLMGFVTHVAYLL 304  
258 SMLKPIN-----TGTLLKPDPRVVVAATRLDSRSFFWNVAPGAESAVSFVTQLAAAEAL 312  
305 KQLLPQSKDLHNVLFVTENGESVDYIGSORFVYDMEKLOFPTSTGTPPIAFDNDPML 364  
313 -QKAPDVTTLPRNVMFVFFOGFTFDYIGSSRWYDMEKGF-----PVQLENVDSFV 363

QY 365 DIGTDDISNKL--H-----ALNGTTLAQOILRLNNYAKSPRYGFNLNI--QSEMSAHL 416  
DB 364 ELGQVALRTSLELMWHTDPVSQKNESVRNOVEDLLATLEKSGA-GVPAVILRRPQSQPL 422  
QY 417 PPTSAQSFLLRRDPNPNALIL---NARPTNKYHYSTYDDADNVDFTYANTSKDFTQLTENV 473  
DB 423 PFSSIQRFELRA-RNISGVVLADHSGAFHNKYQSYDTAENINVSYPEWLSPEEDLNFVT 481  
QY 474 DFKSLNPDLSQMKVRNVSSIIVAMALYQITITKEYTKVKNVPLMADEFLYCFLOQADCP 533  
DB 482 DTAKALAD-----VATVLGRALYELAGTNSDSTVQADPQTVTRLLYGLFLIKANNSW 533  
QY 534 PKA-----ASYPSQLTNLPPMYISVLGSSQSSGTYRLLGYLLSLOQ---PDIHRD 584  
DB 534 FQSILRQDLRSYLGDG-----PLQHYIAV-----SSPTNTTVVOVALANLGTVVNLTRE 584  
QY 585 NCTDL-----PLHYFAGFNICECLTTONYSHALSPAFIDGCDWS 626  
DB 585 QCQDPFSKVPSENKDIYEYSVQGPLH-SNETDRPCVRSTARLARALSPAFELS--QWS 641  
QY 627 SGMYSTWTESTWSQFSARIFLRPNVNHQVTLVSVGVVLLISFCLVYIISRSEVLF 683  
DB 642 STEYSTWTESTSRWKDIRARIFLIASKELELITLTGVFGILIFSLVYTCINAKADVLF 698

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